

A  
TABLE  
OF

*Logarithms,*

For Numbers Increasing in their Natural  
Order, from an Unit to 10000,

With a TABLE of Artificial  
SINES, TANGENTS  
and SECANTS, the Ra-  
dius 10,000000.

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*Carefully Corrected by SAM. HEYNES,*  
*Late Reader of Mathematicks to His*  
*Majesty's Engineers.*

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London, Printed by W. Redmayne for Jer. Seller and  
Cha. Price, at the Hermitage-stairs; where you may  
be furnished with all sorts of Mathematical Books  
and Instruments. 1701.

# TABLE

OF

Logarithms

For finding the Logarithm of any Number  
Contained in this Table.

With a Table of Artificial  
SINES, COSINES  
and SECANTS, the Re-  
sults of which are  
from 1000000.



Curiously Contrived by SAM. JOHNSON,  
Late Master of Mathematics to the  
Royal Academy.

London, Printed by W. B. M. 1749.  
The Author's Address is at the  
Royal Academy, where you may  
see the Tables, which are of  
great Use.



# A TABLE of Logarithms, from 1 to 10000.

Num Log.	Num Log.	Num Log.
1 0.000000	34 1.531479	67 1.826075
2 0.301030	35 1.544068	68 1.832509
3 0.477121	36 1.556302	69 1.838849
4 0.602060	37 1.568202	70 1.845098
5 0.698970	38 1.579784	71 1.851258
6 0.778151	39 1.591065	72 1.857332
7 0.845098	40 1.602060	73 1.863323
8 0.903090	41 1.612784	74 1.869232
9 0.954242	42 1.623249	75 1.875061
10 1.000000	43 1.633468	76 1.880814
11 1.041393	44 1.643453	77 1.886491
12 1.079181	45 1.653212	78 1.892095
13 1.113943	46 1.662758	79 1.897627
14 1.146128	47 1.672098	80 1.903090
15 1.176091	48 1.681241	81 1.908485
16 1.204120	49 1.690196	82 1.913814
17 1.230445	50 1.698970	83 1.919078
18 1.255272	51 1.707570	84 1.924279
19 1.278754	52 1.716003	85 1.929419
20 1.301030	53 1.724276	86 1.934498
21 1.322219	54 1.732394	87 1.939519
22 1.342421	55 1.740363	88 1.944483
23 1.361728	56 1.748188	89 1.949390
24 1.380211	57 1.755875	90 1.954242
25 1.397940	58 1.763428	91 1.959041
26 1.414972	59 1.770852	92 1.963788
27 1.431364	60 1.778151	93 1.968483
28 1.447158	61 1.785330	94 1.973128
29 1.462398	62 1.792392	95 1.977724
30 1.477121	63 1.799340	96 1.982271
31 1.491362	64 1.806180	97 1.986772
32 1.505150	65 1.812913	98 1.991226
33 1.518514	66 1.819544	99 1.995635

# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
100	2.000000	2.000434	2.000868	2.001301	2.001734	432
101	2.004321	2.004751	2.005180	2.005609	2.006038	428
102	2.008600	2.009026	2.009451	2.009876	2.010300	424
103	2.012837	2.013259	2.013680	2.014100	2.014520	419
104	2.017033	2.017451	2.017868	2.018284	2.018700	416
105	2.021189	2.021603	2.022016	2.022428	2.022841	412
106	2.025306	2.025715	2.026124	2.026533	2.026942	408
107	2.029384	2.029789	2.030195	2.030600	2.031004	404
108	2.033424	2.033826	2.034227	2.034628	2.035029	400
109	2.037426	2.037825	2.038223	2.038620	2.039017	396
110	2.041393	2.041787	2.042182	2.042575	2.042969	393
111	2.045323	2.045714	2.046105	2.046495	2.046885	389
112	2.049218	2.049606	2.049993	2.050380	2.050766	386
113	2.053078	2.053463	2.053846	2.054230	2.054613	382
114	2.056905	2.057286	2.057666	2.058046	2.058426	379
115	2.060698	2.061075	2.061452	2.061829	2.062206	376
116	2.064458	2.064832	2.065206	2.065580	2.065953	372
117	2.068186	2.068557	2.068928	2.069298	2.069668	369
118	2.071882	2.072250	2.072617	2.072985	2.073352	366
119	2.075547	2.075912	2.076276	2.076640	2.077004	363
120	2.079181	2.079543	2.079904	2.080266	2.080626	360
121	2.082785	2.083144	2.083503	2.083861	2.084219	357
122	2.086360	2.086716	2.087071	2.087426	2.087781	355
123	2.089905	2.090258	2.090611	2.090963	2.091315	351
124	2.093422	2.093772	2.094122	2.094471	2.094820	349
125	2.096910	2.097257	2.097604	2.097951	2.098297	346
126	2.100371	2.100715	2.101059	2.101403	2.101747	343
127	2.103804	2.104145	2.104487	2.104828	2.105169	340
128	2.107210	2.107549	2.107888	2.108227	2.108565	338
129	2.110590	2.110926	2.111262	2.111598	2.111934	335
130	2.113943	2.114277	2.114611	2.114944	2.115278	333
131	2.117271	2.117603	2.117934	2.118265	2.118595	330
132	2.120574	2.120903	2.121231	2.121560	2.121888	328
133	2.123852	2.124178	2.124504	2.124830	2.125156	325
134	2.127105	2.127429	2.127752	2.128076	2.128399	323
135	2.130334	2.130655	2.130977	2.131298	2.131619	321
136	2.133539	2.133858	2.134177	2.134496	2.134814	318
137	2.136721	2.137039	2.137357	2.137670	2.137987	315



from 1 to 10000,

3

Num	5	6	7	8	9	Diff.
100	2.002166	2.002598	2.003029	2.003460	2.003891	432
101	2.006466	2.006894	2.007321	2.007748	2.008174	428
102	2.010724	2.011147	2.011570	2.011993	2.012415	424
103	2.014940	2.015360	2.015779	2.016197	2.016615	419
104	2.019116	2.019532	2.019947	2.020361	2.020775	416
105	2.023252	2.023664	2.024075	2.024486	2.024896	412
106	2.027350	2.027757	2.028164	2.028571	2.028978	408
107	2.031408	2.031812	2.032216	2.032619	2.033021	404
108	2.035430	2.035830	2.036229	2.036629	2.037028	400
109	2.039414	2.039811	2.040207	2.040602	2.040998	396
110	2.043362	2.043755	2.044148	2.044540	2.044931	393
111	2.047275	2.047664	2.048053	2.048442	2.048830	389
112	2.051152	2.051538	2.051924	2.052309	2.052694	386
113	2.054996	2.055378	2.055760	2.056142	2.056524	382
114	2.058805	2.059183	2.059563	2.059942	2.060320	379
115	2.062582	2.062958	2.063333	2.063709	2.064083	376
116	2.066326	2.066698	2.067071	2.067443	2.067814	372
117	2.070038	2.070407	2.070776	2.071145	2.071514	369
118	2.073718	2.074085	2.074451	2.074816	2.075182	366
119	2.077368	2.077731	2.078094	2.078457	2.078819	363
120	2.080987	2.081347	2.081707	2.082067	2.082426	360
121	2.084576	2.084934	2.085291	2.085647	2.086001	357
122	2.088136	2.088490	2.088845	2.089198	2.089552	355
123	2.091667	2.092018	2.092370	2.092721	2.093071	351
124	2.095169	2.095518	2.095866	2.096215	2.096562	349
125	2.098644	2.098990	2.099335	2.099681	2.100026	346
126	2.102090	2.102434	2.102777	2.103119	2.103462	343
127	2.105510	2.105851	2.106191	2.106531	2.106875	340
128	2.108903	2.109241	2.109578	2.109916	2.110253	338
129	2.112270	2.112605	2.112940	2.113275	2.113609	335
130	2.115610	2.115943	2.116276	2.116608	2.116940	333
131	2.118926	2.119256	2.119586	2.119915	2.120245	330
132	2.122216	2.122543	2.122871	2.123198	2.123525	328
133	2.125481	2.125806	2.126131	2.126456	2.126781	325
134	2.128722	2.129045	2.129368	2.129690	2.130012	323
135	2.131939	2.132260	2.132580	2.132900	2.133219	321
136	2.135133	2.135451	2.135768	2.136086	2.136403	318
137	2.138303	2.138618	2.138934	2.139249	2.139564	315

# A Table of Logarithms,

Num.	0	1	2	3	4	Diff.
138	2.139879	2.140194	2.140508	2.140822	2.141136	314
139	.143015	.143327	.143639	.143951	.144263	311
140	.146128	.146438	.146748	.147058	.147367	309
141	.149219	.149527	.149835	.150142	.150449	307
142	.152288	.152594	.152900	.153205	.153510	305
143	.155336	.155640	.155943	.156246	.156549	303
144	2.158362	2.158664	2.158965	2.159266	2.159567	301
145	.161368	.161667	.161967	.162266	.162564	299
146	.164353	.164650	.164947	.165244	.165541	297
147	.167317	.167613	.167908	.168203	.168497	295
148	.170262	.170555	.170848	.171141	.171434	293
149	.173186	.173478	.173769	.174060	.174351	291
150	2.176001	2.176381	2.176670	2.176959	2.177248	289
151	.178977	.179264	.179552	.179839	.180126	287
152	.181844	.182129	.182415	.182700	.182985	285
153	.184691	.184975	.185259	.185542	.185826	283
154	.187521	.187803	.188084	.188366	.188647	281
155	.190132	.190412	.190692	.190971	.191251	279
156	2.193125	2.193403	2.193681	2.193959	2.194237	278
157	.195900	.196176	.196452	.196729	.197005	276
158	.198657	.198932	.199206	.199481	.199755	274
159	.201327	.201600	.201873	.202146	.202418	272
160	.204120	.204391	.204662	.204933	.205204	271
161	.206826	.207095	.207365	.207634	.207903	269
162	2.209515	2.209783	2.210051	2.210318	2.210586	267
163	.212188	.212454	.212720	.212986	.213252	266
164	.214844	.215109	.215373	.215638	.215902	264
165	.217484	.217747	.218010	.218273	.218535	262
166	.220168	.220370	.220631	.220892	.221153	261
167	.222716	.222976	.223236	.223496	.223755	259
168	.225309	.225568	.225826	.226084	.226342	258
169	2.227887	2.228143	2.228400	2.228657	2.228913	256
170	.230449	.230704	.230960	.231215	.231470	254
171	.232996	.233250	.233504	.233757	.234011	253
172	.235528	.235781	.236033	.236285	.236537	252
173	.238046	.238297	.238548	.238799	.239049	250
174	.240549	.240799	.241048	.241297	.241546	249
175	.243038	.243286	.243534	.243782	.244030	248



from 1 to 10000.

Num	5	6	7	8	9	Diff
138	2.141450	2.141763	2.142076	2.142389	2.142702	314
139	.144574	.144885	.145196	.145507	.145818	311
140	.147676	.147985	.148294	.148603	.148911	309
141	.150756	.151063	.151370	.151678	.151982	307
142	.153815	.154119	.154424	.154728	.155032	305
143	.156852	.157154	.157457	.157759	.158061	303
144	2.159868	2.160168	2.160468	2.160765	2.161068	301
145	.162863	.163161	.163459	.163757	.164055	299
146	.165838	.166134	.166430	.166726	.167022	297
147	.168792	.169086	.169380	.169674	.169968	295
148	.171725	.172019	.172311	.172603	.172895	293
149	.174641	.174932	.175222	.175512	.175802	291
150	2.177536	2.177825	2.178113	2.178401	2.178689	289
151	.180413	.180695	.180986	.181272	.181558	287
152	.183270	.183554	.183839	.184123	.184407	285
153	.186108	.186391	.186674	.186956	.187239	283
154	.188928	.189209	.189490	.189771	.190051	281
155	.191730	.192010	.192289	.192567	.192846	279
156	2.194514	2.194792	2.195069	2.195346	2.195623	278
157	.197280	.197556	.197832	.198107	.198382	276
158	.200029	.200303	.200577	.200850	.201124	274
159	.202761	.203033	.203305	.203577	.203848	272
160	.205475	.205745	.206016	.206286	.206556	271
161	.208172	.208441	.208710	.208978	.209247	269
162	2.210853	2.211120	2.211388	2.211654	2.211921	267
163	.213518	.213783	.214049	.214314	.214579	266
164	.216166	.216430	.216694	.216957	.217221	264
165	.218798	.219060	.219322	.219584	.219846	262
166	.221414	.221675	.221936	.222196	.222456	261
167	.224015	.224274	.224533	.224792	.225051	259
168	.226600	.226858	.227115	.227372	.227630	258
169	2.229170	2.229426	2.229682	2.229938	2.230193	256
170	.231724	.231979	.232233	.232488	.232742	254
171	.234264	.234517	.234770	.235023	.235276	253
172	.236789	.237041	.237292	.237544	.237795	252
173	.239299	.239549	.239800	.240050	.240299	250
174	.241795	.242044	.242293	.242541	.242790	249
175	.244277	.244524	.244772	.245010	.245266	248



# A Table of Logarithms,

Num.	0	1	2	3	4	Diff.
176	2.245513	2.245759	2.246006	2.246252	2.246499	246
177	.247973	.248219	.248464	.248709	.248954	245
178	.250420	.250664	.250908	.251151	.251395	243
179	.252853	.253096	.253338	.253580	.253822	242
180	.255272	.255514	.255755	.255996	.256236	241
181	.257611	.257851	.258091	.258331	.258571	239
182	2.260071	2.260310	2.260548	2.260787	2.261025	238
183	.262451	.262688	.262925	.263162	.263399	237
184	.264818	.265054	.265290	.265525	.265761	235
185	.267172	.267406	.267641	.267875	.268110	234
786	.269513	.269746	.269980	.270213	.270446	233
187	.271842	.272074	.272306	.272538	.272770	232
188	2.274158	2.274389	2.274620	2.274850	2.275081	230
189	.276462	.276691	.276921	.277151	.277380	229
190	.278754	.278982	.279210	.279439	.279667	228
191	.281033	.281261	.281488	.281715	.281942	227
192	.283301	.283527	.283753	.283979	.284205	226
193	.285557	.285782	.286007	.286232	.286456	225
194	2.287802	2.288025	2.288245	2.288473	2.288696	223
195	.290035	.290257	.290480	.290702	.290925	222
196	.292256	.292478	.292699	.292920	.293141	221
197	.294466	.294687	.294907	.295127	.295347	220
198	.296665	.296884	.297104	.297323	.297542	219
199	.298853	.299071	.299289	.299507	.299725	218
200	2.301030	2.301247	2.301464	2.301681	2.301898	217
201	.303196	.303412	.303628	.303844	.304059	216
202	.305351	.305566	.305781	.305996	.306210	215
203	.307496	.307710	.307924	.308137	.308351	213
204	.309630	.309843	.310056	.310268	.310481	212
205	.311754	.311966	.312177	.312389	.312600	211
206	.313867	.314078	.314289	.314499	.314710	210
207	2.315970	2.316180	2.316390	2.316599	2.316809	209
208	.318063	.318272	.318481	.318689	.318898	208
209	.320146	.320354	.320562	.320769	.320977	207
210	.322219	.322426	.322633	.322839	.323046	206
211	.324282	.324488	.324694	.324899	.325105	205
212	.326336	.326541	.326745	.326950	.327154	204
213	.328380	.328583	.328787	.328991	.329194	203

from 1 to 10000.

Num	5	6	7	8	9	Diff.
176	2.246745	2.246991	2.247236	2.247482	2.247728	246
177	.249198	.249443	.249687	.249932	.250176	247
178	.251638	.251881	.252125	.252367	.252610	248
179	.254064	.254306	.254548	.254790	.255031	249
180	.256477	.256718	.256958	.257198	.257439	250
181	.258877	.259116	.259355	.259594	.259833	251
182	2.261263	2.261501	2.261738	2.261976	2.262214	252
183	.263636	.263873	.264109	.264345	.264582	253
184	.265996	.266232	.266467	.266702	.266937	254
185	.268344	.268578	.268812	.269046	.269279	255
186	.270679	.270912	.271144	.271377	.271609	256
187	.273001	.273233	.273464	.273696	.273927	257
188	2.275311	2.275542	2.275772	2.276002	2.276232	258
189	.277609	.277838	.278067	.278296	.278525	259
190	.279895	.280123	.280351	.280578	.280806	260
191	.282169	.282395	.282622	.282849	.283075	261
192	.284431	.284656	.284882	.285107	.285332	262
193	.286681	.286905	.287130	.287354	.287578	263
194	2.288920	2.289143	2.289366	2.289589	2.289812	264
195	.291147	.291369	.291591	.291813	.292034	265
196	.293362	.293583	.293804	.294025	.294246	266
197	.295567	.295787	.296007	.296226	.296446	267
198	.297760	.297979	.298198	.298416	.298635	268
199	.299943	.300160	.300378	.300595	.300813	269
200	2.302114	2.302331	2.302547	2.302764	2.302980	270
201	.304275	.304490	.304706	.304921	.305136	271
202	.306425	.306639	.306854	.307068	.307282	272
203	.308564	.308778	.308991	.309204	.309417	273
204	.310693	.310906	.311118	.311330	.311542	274
205	.312812	.313023	.313234	.313445	.313656	275
206	.314920	.315130	.315340	.315550	.315760	276
207	2.317018	2.317227	2.317436	2.317645	2.317854	277
208	.319108	.319314	.319523	.319730	.319938	278
209	.321184	.321391	.321598	.321805	.322012	279
210	.323252	.323458	.323664	.323871	.324077	280
211	.325310	.325516	.325721	.325926	.326131	281
212	.327359	.327563	.327767	.327972	.328176	282
213	.329398	.329601	.329804	.330008	.330211	283

# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
214	2.330414	2.330617	2.330819	2.331022	2.331225	202
215	.332438	.332640	.332842	.333044	.333246	202
216	.334454	.334655	.334856	.335056	.335257	201
217	.336460	.336660	.336860	.337060	.337260	200
218	.338456	.338656	.338855	.339054	.339253	199
219	.340444	.340642	.340840	.341039	.341237	198
220	2.342423	2.342620	2.342817	2.343014	2.343212	197
221	.344392	.344589	.344785	.344981	.345178	196
222	.346353	.346549	.346744	.346939	.347135	195
223	.348305	.348500	.348694	.348889	.349083	194
224	.350248	.350442	.350636	.350829	.351023	193
225	.352182	.352375	.352568	.352761	.352954	193
226	2.354108	2.354301	2.354493	2.354684	2.354876	192
227	.356026	.356217	.356408	.356599	.356790	191
228	.357935	.358125	.358316	.358506	.358696	190
229	.359835	.360025	.360215	.360404	.360593	189
230	.361728	.361917	.362105	.362294	.362482	188
231	.363612	.363800	.363988	.364176	.364363	188
232	2.365488	2.365675	2.365862	2.366049	2.366236	187
233	.367356	.367542	.367728	.367915	.368101	186
234	.369216	.369401	.369587	.369772	.369958	185
235	.371068	.371253	.371437	.371622	.371806	184
236	.372912	.373096	.373280	.373464	.373647	184
237	.374748	.374931	.375115	.375298	.375481	183
238	2.376577	2.376759	2.376942	2.377124	2.377306	182
239	.378398	.378580	.378761	.378943	.379124	181
240	.380211	.380392	.380573	.380754	.380934	181
241	.382017	.382197	.382377	.382557	.382737	180
242	.383815	.383995	.384174	.384353	.384533	179
243	.385606	.385785	.385964	.386142	.386321	178
244	.387390	.387568	.387746	.387923	.388101	178
245	2.389166	2.389343	2.389520	2.389697	2.389874	177
246	.390935	.391112	.391288	.391464	.391641	176
247	.392697	.392873	.393048	.393224	.393400	176
248	.394452	.394627	.394802	.394977	.395152	175
249	.396195	.396374	.396548	.396722	.396896	174
250	.397940	.398114	.398287	.398461	.398634	173
251	.399674	.399847	.400020	.400192	.400365	173

from 1 to 10000.

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Num	5	6	7	8	9	Ditt.
214	2.331427	2.331629	2.331832	2.332034	2.332230	202
215	.333447	.333649	.333850	.334051	.334253	202
216	.335458	.335658	.335859	.336059	.336259	201
217	.337459	.337659	.337858	.338058	.338257	200
218	.339451	.339650	.339849	.340047	.340246	199
219	.341434	.341632	.341830	.342028	.342225	198
220	2.343409	2.343605	2.343802	2.343999	2.344196	197
221	.345374	.345570	.345766	.345961	.346157	196
222	.347330	.347525	.347720	.347915	.348110	195
223	.349277	.349472	.349660	.349860	.350054	194
224	.351216	.351500	.351603	.351796	.351989	193
225	.353146	.353339	.353532	.353724	.353916	193
226	2.355068	2.355260	2.355451	2.355643	2.355834	192
227	.356981	.357172	.357363	.357554	.357744	191
228	.358886	.359076	.359266	.359456	.359646	190
229	.360783	.360972	.361161	.361350	.361539	189
230	.362671	.362859	.363048	.363236	.363424	188
231	.364551	.364739	.364926	.365113	.365301	188
232	2.366423	2.366700	2.366796	2.366983	2.367169	187
233	.368287	.368473	.368659	.368844	.369030	186
234	.370143	.370328	.370513	.370698	.370883	185
235	.371991	.372175	.372360	.372544	.372728	184
236	.373831	.374015	.374198	.374382	.374565	184
237	.375664	.375846	.376029	.376212	.376394	183
238	2.377488	2.377670	2.377852	2.378034	2.378216	182
239	.379305	.379487	.379668	.379849	.380030	181
240	.381115	.381296	.381476	.381656	.381837	181
241	.382917	.383097	.383277	.383456	.383636	180
242	.384712	.384891	.385070	.385249	.385427	179
243	.386459	.386677	.386855	.387034	.387212	178
244	.388279	.388456	.388634	.388811	.388989	178
245	2.390051	2.390228	2.390405	2.390582	2.390758	177
246	.391817	.391993	.392169	.392345	.392521	176
247	.393575	.393751	.393926	.394101	.394276	176
248	.395326	.395501	.395676	.395850	.396025	175
249	.397070	.397245	.397418	.397592	.397766	174
250	.398808	.398981	.399154	.399327	.399501	173
251	.400538	.400711	.400883	.401056	.401228	173



# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
252	2.401400	2.401573	2.401745	2.401917	2.402089	172
253	.403120	.403292	.403464	.403635	.403807	171
254	.404834	.405005	.405175	.405346	.405517	171
255	.406540	.406710	.406881	.407051	.407221	170
256	.408240	.408400	.408579	.408749	.408918	169
257	.409933	.410102	.410271	.410440	.410608	169
258	2.411620	2.411788	2.411956	2.412124	2.412292	168
259	.413300	.413467	.413635	.413802	.413970	167
260	.414973	.415140	.415307	.415474	.415641	167
261	.416640	.416807	.416973	.417139	.417306	166
262	.418301	.418467	.418633	.418798	.418964	165
263	.419956	.420121	.420286	.420451	.420616	165
264	2.421604	2.421768	2.421933	2.422097	2.422261	164
265	.423246	.423410	.423573	.423737	.423901	164
266	.424882	.425045	.425208	.425371	.425534	163
267	.426511	.426674	.426836	.426999	.427161	162
268	.428135	.428297	.428459	.428621	.428782	162
269	.429752	.429914	.430075	.430236	.430398	161
270	2.431364	2.431525	2.431685	2.431846	2.432007	161
271	.432969	.433129	.433290	.433450	.433610	160
272	.434569	.434728	.434888	.435048	.435207	159
273	.436163	.436322	.436481	.436640	.436798	159
274	.437751	.437909	.438067	.438226	.438384	158
275	.439333	.439491	.439648	.439806	.439964	158
276	2.440909	2.441066	2.441224	2.441381	2.441538	157
277	.442480	.442636	.442793	.442950	.443106	157
278	.444045	.444201	.444357	.444513	.444669	156
279	.445604	.445760	.445915	.446071	.446226	155
280	.447158	.447313	.447468	.447623	.447778	155
281	.448706	.448861	.449015	.449170	.449324	154
282	.450259	.450403	.450557	.450711	.450865	154
283	2.451786	2.451940	2.452093	2.452247	2.452400	153
284	.453318	.453471	.453624	.453777	.453930	153
285	.454845	.454997	.455149	.455302	.455454	152
286	.456366	.456518	.456670	.456821	.456973	152
287	.457882	.458033	.458184	.458336	.458487	151
288	.459392	.459543	.459694	.459845	.459995	151
289	.460898	.461048	.461198	.461348	.461498	150



from 1 to 10000.

Num	5	6	7	8	9	Diff.
252	2.402261	2.402433	2.402605	2.402777	2.402949	172
253	.403978	.404149	.404320	.404492	.404663	171
254	.405688	.405858	.406029	.406199	.406370	171
255	.407391	.407561	.407731	.407900	.408070	170
256	.409087	.409257	.409426	.409595	.409764	169
257	.410777	.410946	.411114	.411283	.411451	169
258	2.412160	2.412628	2.412796	2.412964	2.413132	168
259	.414137	.414305	.414472	.414639	.414806	167
260	.415808	.415974	.416141	.416308	.416474	167
261	.417472	.417638	.417804	.417970	.418135	166
262	.419129	.419295	.419460	.419625	.419791	165
263	.420781	.420945	.421110	.421275	.421439	165
264	2.422426	2.422590	2.422754	2.422918	2.423082	164
265	.424064	.424228	.424391	.424555	.424718	164
266	.425697	.425860	.426023	.426186	.426349	163
267	.427324	.427486	.427648	.427811	.427973	162
268	.428944	.429106	.429268	.429429	.429591	162
269	.430559	.430720	.430881	.431042	.431203	161
270	2.432167	2.432328	2.432488	2.432649	2.432809	166
271	.433770	.433930	.434090	.434249	.434409	160
272	.435366	.435526	.435685	.435844	.436003	159
273	.436957	.437116	.437275	.437433	.437592	159
274	.438542	.438700	.438859	.439017	.439175	158
275	.440122	.440279	.440437	.440594	.440752	158
276	2.441695	2.441852	2.442009	2.442166	2.442323	157
277	.443263	.443419	.443576	.443732	.443888	157
278	.444825	.444981	.445137	.445293	.445448	156
279	.446382	.446537	.446692	.446848	.447003	155
280	.447933	.448088	.448242	.448397	.448552	155
281	.449478	.449633	.449787	.449941	.450095	154
282	.451018	.451172	.451326	.451479	.451633	154
283	2.452553	2.452706	2.452859	2.453012	2.453165	153
284	.454082	.454235	.454387	.454540	.454692	153
285	.455606	.455758	.455910	.456062	.456214	152
286	.457125	.457276	.457428	.457579	.457730	152
287	.458638	.458789	.458940	.459091	.459242	151
288	.460146	.460296	.460447	.460597	.460747	151
289	.461649	.461799	.461948	.462098	.462248	150

# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
290	2.462398	2.462548	2.462697	2.462847	2.462997	150
291	.463893	.464042	.464191	.464340	.464489	149
292	.465383	.465532	.465680	.465829	.465977	149
293	.466868	.467016	.467164	.467312	.467460	148
294	.468347	.468495	.468643	.468790	.468938	147
295	.469822	.469969	.470116	.470263	.470410	147
296	2.471292	2.471438	2.471585	2.471732	2.471878	146
297	.472756	.472903	.473049	.473195	.473341	146
298	.474216	.474362	.474508	.474653	.474799	146
299	.475671	.475817	.475962	.476107	.476252	145
300	.477121	.477266	.477411	.477555	.477700	145
301	.478566	.478711	.478855	.478999	.479143	144
302	2.480007	2.480151	2.480294	2.480438	2.480582	144
303	.481443	.481586	.481729	.481872	.482016	143
304	.482874	.483016	.483159	.483302	.483445	143
305	.484300	.484442	.484584	.484727	.484869	142
306	.485721	.485863	.486005	.486147	.486289	142
307	.487138	.487280	.487421	.487563	.487704	141
308	2.488551	2.488692	2.488833	2.488973	2.489114	141
309	.489958	.490099	.490239	.490380	.490520	140
310	.491362	.491502	.491642	.491782	.491922	140
311	.492760	.492900	.493040	.493179	.493319	139
312	.494155	.494294	.494433	.494572	.494711	139
313	.495544	.495683	.495822	.495960	.496099	139
314	2.496930	2.497068	2.497206	2.497344	2.497482	138
315	.498311	.498448	.498586	.498724	.498862	138
316	.499687	.499824	.499962	.500099	.500236	137
317	.501059	.501196	.501333	.501470	.501607	137
318	.502427	.502564	.502700	.502837	.502973	136
319	.503791	.503927	.504063	.504199	.504335	136
320	.505150	.505286	.505421	.505557	.505692	136
321	2.506505	2.506640	2.506775	2.506911	2.507046	135
322	.507856	.507991	.508125	.508260	.508395	135
323	.509202	.509337	.509471	.509606	.509740	134
324	.510545	.510679	.510813	.510947	.511081	134
325	.511883	.512017	.512150	.512284	.512417	133
326	.513218	.513351	.513484	.513617	.513750	133
327	.514548	.514680	.514813	.514946	.515079	133

from 1 to 10000.

Num	5	6	7	8	9	Diff.
290	2.463146	2.463296	2.463445	2.463594	2.463744	150
291	.464639	.464787	.464936	.465085	.465234	149
292	.466126	.466274	.466423	.466571	.466719	149
293	.467608	.467756	.467904	.468052	.468200	148
294	.469085	.469233	.469380	.469527	.469675	147
295	.470557	.470704	.470851	.470998	.471145	147
296	2.472025	2.472171	2.472317	2.472464	2.472610	146
297	.473487	.473633	.473779	.473925	.474070	146
298	.474944	.475090	.475235	.475381	.475526	146
299	.476397	.476542	.476687	.476832	.476976	145
300	.477844	.477989	.478133	.478278	.478422	145
301	.479287	.479431	.479575	.479719	.479863	144
302	2.480725	2.480869	2.481012	2.481156	2.481299	144
303	.482159	.482302	.482445	.482588	.482731	143
304	.483587	.483730	.483872	.484015	.484157	143
305	.485011	.485153	.485295	.485437	.485579	142
306	.486430	.486572	.486714	.486855	.486997	142
307	.487845	.487986	.488127	.488269	.488410	141
308	2.489255	2.489396	2.489537	2.489677	2.489818	141
309	.490661	.490801	.490941	.491081	.491222	140
310	.492062	.492201	.492341	.492481	.492621	140
311	.493458	.493597	.493737	.493876	.494015	139
312	.494850	.494989	.495128	.495267	.495406	139
313	.496237	.496376	.496514	.496653	.496791	139
314	2.497621	2.497755	2.497897	2.498035	2.498173	138
315	.498995	.499137	.499275	.499412	.499550	138
316	.500374	.500511	.500648	.500785	.500922	137
317	.501744	.501880	.502017	.502154	.502290	137
318	.503109	.503246	.503382	.503518	.503654	136
319	.504471	.504607	.504743	.504878	.505014	136
320	.505828	.505963	.506099	.506234	.506370	136
321	2.507181	2.507316	2.507451	2.507586	2.507721	135
322	.508530	.508664	.508799	.508933	.509068	135
323	.509874	.510008	.510143	.510277	.510411	134
324	.511215	.511348	.511482	.511616	.511750	134
325	.512551	.512684	.512818	.512951	.513084	133
326	.513883	.514016	.514149	.514282	.514415	133
327	.515211	.515344	.515476	.515609	.515741	133

# A Table of Logarithms,

Num	0	1	2	3	4	Diff
328	2.515874	2.516006	2.516139	2.516271	2.516403	132
329	.517196	.517328	.517460	.517592	.517724	132
330	.518514	.518645	.518777	.518909	.519040	131
331	.519828	.519959	.520090	.520221	.520352	131
332	.521138	.521269	.521400	.521530	.521661	131
333	.522444	.522575	.522705	.522835	.522966	130
334	2.523746	2.523876	2.524006	2.524136	2.524266	130
335	.525045	.525174	.525304	.525433	.525563	129
336	.526339	.526468	.526598	.526727	.526856	129
337	.527630	.527759	.527888	.528016	.528145	129
338	.528917	.529045	.529174	.529302	.529430	128
339	.530200	.530328	.530456	.530584	.530712	128
340	2.531479	2.531607	2.531734	2.531862	2.531989	128
341	.532754	.532882	.533009	.533136	.533263	127
342	.534026	.534153	.534280	.534407	.534534	127
343	.535294	.535421	.535547	.535674	.535800	126
344	.536558	.536685	.536811	.536937	.537063	126
345	.537819	.537945	.538071	.538197	.538322	126
346	2.539076	2.539202	2.539327	2.539452	2.539578	125
347	.540329	.540455	.540580	.540705	.540830	125
348	.541579	.541704	.541829	.541953	.542078	125
349	.542825	.542950	.543074	.543199	.543323	124
350	.544068	.544192	.544316	.544440	.544564	124
351	.545307	.545431	.545554	.545678	.545802	124
352	2.546543	2.546666	2.546789	2.546913	2.547036	123
353	.547775	.547898	.548021	.548144	.548266	123
354	.549003	.549126	.549249	.549371	.549494	123
355	.550228	.550351	.550473	.550595	.550717	122
356	.551450	.551572	.551694	.551816	.551938	122
357	.552668	.552790	.552911	.553033	.553154	121
358	.553883	.554004	.554126	.554247	.554368	121
359	2.555094	2.555215	2.555336	2.555457	2.555578	121
360	.556302	.556423	.556544	.556664	.556785	120
361	.557507	.557627	.557748	.557868	.557988	120
362	.558709	.558828	.558948	.559068	.559188	120
363	.559907	.560026	.560146	.560265	.560385	119
364	.561191	.561221	.561340	.561459	.561578	119
365	.562293	.562412	.562531	.562650	.562768	119



from 1 to 10000.

Num	5	6	7	8	9	Diff
328	2.516535	2.516668	2.516800	2.516932	2.517064	132
329	.517855	.517987	.518119	.518251	.518382	132
330	.519171	.519303	.519434	.519565	.519697	131
331	.520483	.520614	.520745	.520876	.521007	131
332	.521792	.521922	.522053	.522183	.522314	131
333	.523096	.523226	.523356	.523486	.523616	130
334	2.524396	2.524526	2.524656	2.524785	2.524915	130
335	.525992	.525822	.525951	.526081	.526210	129
336	.526985	.527114	.527243	.527372	.527501	129
337	.528274	.528402	.528531	.528660	.528788	129
338	.529559	.529687	.529815	.529943	.530072	128
339	.530840	.530968	.531095	.531223	.531351	128
340	2.532117	2.532245	2.532372	2.532500	2.532627	128
341	.533391	.533518	.533645	.533772	.533899	127
342	.534661	.534787	.534914	.535041	.535167	127
343	.535927	.536053	.536179	.536306	.536432	126
344	.537189	.537315	.537441	.537567	.537693	126
345	.538448	.538574	.538699	.538825	.538951	126
346	2.539704	2.539828	2.539954	2.540079	2.540204	125
347	.540955	.541080	.541205	.541330	.541454	125
348	.542203	.542327	.542452	.542576	.542701	125
349	.543447	.543571	.543696	.543820	.543944	124
350	.544688	.544812	.544936	.545060	.545183	124
351	.545925	.546049	.546172	.546296	.546419	124
352	2.547159	2.547282	2.547405	2.547529	2.547652	123
353	.548389	.548512	.548635	.548758	.548881	123
354	.549616	.549739	.549861	.549984	.550106	123
355	.550840	.550962	.551084	.551206	.551328	122
356	.552059	.552181	.552303	.552425	.552546	122
357	.553276	.553397	.553519	.553640	.553762	121
358	.554489	.554610	.554731	.554852	.554973	121
359	2.555699	2.555820	2.555940	2.556061	2.556182	121
360	.556905	.557026	.557146	.557266	.557387	120
361	.558108	.558228	.558348	.558469	.558589	120
362	.559308	.559428	.559548	.559667	.559787	120
363	.560504	.560624	.560743	.560863	.560982	119
364	.561697	.561817	.561936	.562055	.562174	119
365	.562887	.563006	.563125	.563244	.563362	119



# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
366	2.563481	2.563600	2.563718	2.563837	2.563955	119
367	.564666	.564784	.564903	.565021	.565139	118
368	.565848	.565966	.566084	.566202	.566320	118
369	.567026	.567144	.567262	.567379	.567497	118
370	.568202	.568319	.568436	.568554	.568671	117
371	.569374	.569491	.569608	.569725	.569842	117
372	2.570543	2.570660	2.570776	2.570893	2.571010	117
373	.571709	.571825	.571942	.572058	.572174	116
374	.572872	.572988	.573104	.573220	.573336	116
375	.574031	.574147	.574263	.574379	.574494	116
376	.575188	.575303	.575419	.575534	.575650	115
377	.576341	.576456	.576572	.576687	.576802	115
378	2.577492	2.577607	2.577721	2.577836	2.577951	115
379	.578639	.578754	.578868	.578983	.579097	114
380	.579784	.579898	.580012	.580126	.580240	114
381	.580925	.581039	.581153	.581267	.581381	114
382	.582063	.582177	.582291	.582404	.582518	114
383	.583199	.583312	.583425	.583539	.583652	113
384	2.584331	2.584444	2.584557	2.584670	2.584783	113
385	.585461	.585573	.585686	.585799	.585912	113
386	.586587	.586700	.586812	.586925	.587037	112
387	.587711	.587823	.587935	.588047	.588160	112
388	.588832	.588944	.589055	.589167	.589279	112
389	.589950	.590061	.590173	.590284	.590396	112
390	2.591065	2.591176	2.591287	2.591398	2.591510	111
391	.592177	.592288	.592399	.592510	.592621	111
392	.593286	.593397	.593508	.593618	.593729	111
393	.594392	.594503	.594613	.594724	.594834	110
394	.595496	.595606	.595717	.595827	.595937	110
395	.596597	.596707	.596817	.596927	.597037	110
396	.597695	.597805	.597914	.598024	.598134	110
397	2.598790	2.598900	2.599009	2.599119	2.599228	109
398	.599883	.599992	.600101	.600210	.600319	109
399	.600973	.601082	.601190	.601299	.601408	109
400	.602060	.602168	.602277	.602386	.602494	108
401	.603144	.603253	.603361	.603469	.603577	108
402	.604226	.604334	.604442	.604550	.604658	108
403	.605305	.605413	.605520	.605628	.605736	108

from 1 to 10000.

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Num	5	6	7	8	9	Diff
366	2.564074	2.564192	2.564311	2.564429	2.564548	119
367	.565257	.565375	.565494	.565612	.565730	118
368	.566437	.566555	.566673	.566791	.566909	118
369	.567614	.567732	.567849	.567967	.568084	118
370	.568788	.568905	.569023	.569140	.569257	117
371	.569959	.570076	.570193	.570309	.570426	117
372	2.571126	2.571243	2.571359	2.571476	2.571592	117
373	.572291	.572407	.572523	.572639	.572755	116
374	.573452	.573568	.573684	.573800	.573915	116
375	.574610	.574726	.574841	.574957	.575072	116
376	.575765	.575880	.575996	.576111	.576226	115
377	.576917	.577032	.577147	.577262	.577377	115
378	2.578066	2.578181	2.578295	2.578410	2.578525	115
379	.579212	.579326	.579441	.579555	.579669	114
380	.580355	.580469	.580583	.580697	.580811	114
381	.581495	.581608	.581722	.581836	.581950	114
382	.582631	.582745	.582858	.582972	.583085	114
383	.583765	.583879	.583992	.584105	.584218	113
384	2.584896	2.585009	2.585122	2.585235	2.585348	113
385	.586024	.586137	.586250	.586362	.586475	113
386	.587149	.587262	.587374	.587486	.587599	112
387	.588272	.588384	.588496	.588608	.588720	112
388	.589391	.589503	.589614	.589726	.589838	112
389	.590507	.590619	.590730	.590842	.590953	112
390	2.591621	2.591732	2.591843	2.591955	2.592066	111
391	.592732	.592843	.592954	.593064	.593175	111
392	.593840	.593950	.594061	.594171	.594282	111
393	.594945	.595055	.595165	.595276	.595386	110
394	.596047	.596157	.596267	.596377	.596487	110
395	.597146	.597256	.597366	.597476	.597585	110
396	.598243	.598353	.598462	.598572	.598681	110
397	2.599337	2.599446	2.599556	2.599665	2.599774	109
398	.600428	.600537	.600646	.600755	.600864	109
399	.601517	.601625	.601734	.601843	.601951	109
400	.602602	.602711	.602819	.602928	.603036	108
401	.603685	.603794	.603902	.604010	.604118	108
402	.604766	.604874	.604982	.605089	.605197	108
403	.605843	.605951	.606059	.606166	.606274	108

# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
404	2.606381	2.606489	2.606596	2.606704	2.606811	107
405	.607455	.607562	.607669	.607777	.607884	107
406	.608526	.608633	.608740	.608847	.608954	107
407	.609594	.609701	.609808	.609914	.610021	107
408	.610660	.610767	.610873	.610979	.611086	106
409	.611723	.611829	.611936	.612042	.612148	106
410	2.612784	2.612890	2.612996	2.613102	2.613207	106
411	.613842	.613947	.614053	.614159	.614264	106
412	.614897	.615003	.615108	.615223	.615319	105
413	.615950	.616055	.616160	.616265	.616370	105
414	.617000	.617105	.617210	.617315	.617420	105
415	.618048	.618153	.618257	.618362	.618466	105
416	2.619093	2.619198	2.619302	2.619406	2.619511	104
417	.620136	.620240	.620344	.620448	.620552	104
418	.621176	.621280	.621384	.621488	.621592	104
419	.622214	.622318	.622421	.622525	.622628	104
420	.623249	.623353	.623456	.623559	.623663	103
421	.624282	.624385	.624488	.624591	.624694	103
422	2.625312	2.625415	2.625518	2.625621	2.625724	103
423	.626340	.626443	.626546	.626648	.626751	103
424	.627366	.627468	.627571	.627673	.627775	101
425	.628389	.628491	.628593	.628695	.628797	102
426	.629410	.629511	.629613	.629715	.629817	102
427	.630428	.630529	.630631	.630733	.630834	102
428	2.631444	2.631545	2.631647	2.631748	2.631849	101
429	.632457	.632558	.632660	.632761	.632862	101
430	.633468	.633569	.633670	.633771	.633872	100
431	.634477	.634578	.634679	.634779	.634880	100
432	.635484	.635584	.635685	.635785	.635886	100
433	.636488	.636588	.636688	.636789	.636889	100
434	.637490	.637590	.637690	.637790	.637890	99
435	2.638489	2.638589	2.638689	2.638789	2.638888	99
436	.639486	.639586	.639686	.639785	.639885	99
437	.640481	.640581	.640680	.640779	.640879	99
438	.641474	.641573	.641672	.641771	.641870	99
439	.642464	.642563	.642662	.642761	.642860	99
440	.643453	.643551	.643650	.643749	.643847	98
441	.644439	.644537	.644635	.644734	.644832	98

from 1 to 10000.

Num	5	6	7	8	9	Diff.
404	2.606918	2.607026	2.607133	2.607240	2.607348	107
405	.607991	.608098	.608205	.608312	.608419	107
406	.609060	.609167	.609274	.609381	.609488	107
407	.610128	.610234	.610341	.610447	.610554	107
408	.611192	.611298	.611405	.611511	.611617	106
409	.612254	.612360	.612466	.612572	.612678	106
410	2.613313	2.613419	2.613525	2.613630	2.613736	106
411	.614370	.614475	.614581	.614686	.614792	106
412	.615424	.615529	.615634	.615740	.615845	105
413	.616475	.616580	.616685	.616790	.616895	105
414	.617524	.617629	.617734	.617839	.617943	105
415	.618571	.618675	.618780	.618884	.618989	105
416	2.619615	2.619719	2.619823	2.619928	2.620032	104
417	.620656	.620760	.620864	.620968	.621072	104
418	.621695	.621799	.621903	.622007	.622110	104
419	.622732	.622835	.622939	.623042	.623146	104
420	.623766	.623869	.623972	.624076	.624179	103
421	.624798	.624901	.625004	.625107	.625209	103
422	2.625827	2.625929	2.626032	2.626135	2.626238	103
423	.626853	.626956	.627058	.627161	.627263	103
424	.627878	.627980	.628082	.628184	.628287	102
425	.628900	.629002	.629104	.629206	.629308	102
426	.629919	.630021	.630123	.630224	.630326	102
427	.630936	.631038	.631139	.631241	.631342	102
428	2.631951	2.632052	2.632153	2.632255	2.632356	101
429	.632963	.633064	.633165	.633266	.633367	101
430	.633973	.634074	.634175	.634276	.634376	100
431	.634981	.635081	.635182	.635283	.635383	100
432	.635986	.636086	.636187	.636287	.636388	100
433	.636989	.637089	.637189	.637289	.637390	100
434	.637990	.638090	.638190	.638289	.638389	99
435	2.638988	2.639088	2.639188	2.639287	2.639387	99
436	.639984	.640084	.640183	.640283	.640382	99
437	.640978	.641077	.641176	.641276	.641375	99
438	.641970	.642069	.642168	.642267	.642366	99
439	.642959	.643058	.643156	.643255	.643354	99
440	.643946	.644044	.644143	.644242	.644340	98
441	.644931	.645029	.645127	.645226	.645324	98



# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
442	2.645422	2.645520	2.645619	2.645717	2.645815	98
443	.646404	.646502	.646600	.646698	.646796	98
444	.647383	.647481	.647578	.647676	.647774	98
445	.648360	.648458	.648555	.648653	.648750	97
446	.649335	.649432	.649530	.649627	.649724	97
447	.650307	.650405	.650502	.650599	.650696	97
448	2.651278	2.651375	2.651472	2.651569	2.651666	97
449	.652246	.652343	.652440	.652536	.652633	97
450	.653212	.653309	.653405	.653502	.653598	96
451	.654176	.654273	.654369	.654465	.654562	96
452	.655138	.655234	.655331	.655427	.655523	96
453	.656098	.656194	.656290	.656386	.656481	96
454	2.657056	2.657151	2.657247	2.657343	2.657438	96
455	.658011	.658107	.658202	.658298	.658393	95
456	.658965	.659060	.659155	.659250	.659346	95
457	.659916	.660011	.660106	.660201	.660296	95
458	.660865	.660960	.661055	.661150	.661245	95
459	.661813	.661907	.662002	.662096	.662191	95
460	2.662758	2.662852	2.662947	2.663041	2.663135	94
461	.663701	.663795	.663889	.663983	.664078	94
462	.664642	.664736	.664830	.664924	.665018	94
463	.665581	.665675	.665768	.665862	.665956	94
464	.666518	.666612	.666705	.666799	.666892	94
465	.667453	.667546	.667640	.667733	.667826	93
466	2.668386	2.668479	2.668572	2.668665	2.668758	93
467	.669317	.669410	.669503	.669596	.669689	93
468	.670246	.670339	.670431	.670524	.670617	93
469	.671173	.671265	.671358	.671451	.671543	93
470	.672098	.672190	.672283	.672375	.672467	92
471	.673021	.673113	.673205	.673297	.673390	92
472	.673942	.674034	.674126	.674218	.674310	92
473	2.674861	2.674953	2.675045	2.675136	2.675228	92
474	.675778	.675870	.675961	.676053	.676145	92
475	.676694	.676785	.676876	.676968	.677059	91
476	.677607	.677698	.677789	.677881	.677972	91
477	.678518	.678609	.678700	.678791	.678882	91
478	.679428	.679519	.679610	.679700	.679791	91
479	.680335	.680426	.680517	.680607	.680698	91



## from 1 to 10000.

Nun.	5	6	7	8	9	Diff.
442	2.645913	2.646011	2.646109	2.646208	2.646306	98
443	.646894	.646991	.647089	.647187	.647285	98
444	.647872	.647965	.648067	.648165	.648262	98
445	.648848	.648945	.649043	.649140	.649237	97
446	.649821	.649919	.650016	.650113	.650210	97
447	.650793	.650890	.650987	.651084	.651181	97
448	2.651762	2.651859	2.651956	2.652053	2.652150	97
449	.652730	.652826	.652923	.653019	.653116	97
450	.653695	.653791	.653888	.653984	.654080	96
451	.654658	.654754	.654850	.654946	.655042	96
452	.655615	.655714	.655810	.655906	.656002	96
453	.656577	.656673	.656769	.656864	.656960	96
454	2.657534	2.657629	2.657725	2.657820	2.657916	96
455	.658488	.658584	.658679	.658774	.658870	95
456	.659441	.659536	.659631	.659726	.659821	95
457	.660391	.660486	.660581	.660676	.660771	95
458	.661339	.661434	.661529	.661623	.661718	95
459	.662285	.662380	.662474	.662569	.662663	95
460	2.663230	2.663324	2.663418	2.663512	2.663607	94
461	.664172	.664266	.664360	.664454	.664548	94
462	.665112	.665206	.665299	.665393	.665487	94
463	.666050	.666143	.666237	.666331	.666424	94
464	.666986	.667079	.667173	.667266	.667359	94
465	.667920	.668013	.668106	.668199	.668293	93
466	2.668852	2.668945	2.669038	2.669131	2.669224	93
467	.669782	.669874	.669967	.670060	.670153	93
468	.670710	.670802	.670895	.670988	.671080	93
469	.671636	.671728	.671821	.671913	.672005	93
470	.672560	.672652	.672744	.672836	.672929	92
471	.673482	.673574	.673666	.673758	.673850	92
472	.674402	.674494	.674586	.674677	.674769	92
473	2.675320	2.675412	2.675503	2.675595	2.675687	92
474	.676236	.676328	.676419	.676511	.676602	92
475	.677150	.677242	.677333	.677424	.677516	91
476	.678063	.678154	.678245	.678336	.678427	91
477	.678973	.679064	.679155	.679246	.679337	91
478	.679882	.679973	.680063	.680154	.680245	91
479	.680789	.680879	.680970	.681060	.681151	91

# A Table of Logarithms,

Num	0	1	2	3	4	Diff
480	2.681241	2.681332	2.681422	2.681513	2.681603	90
481	.682145	.682235	.682326	.682416	.682506	90
482	.683047	.683137	.683227	.683317	.683407	90
483	.683947	.684037	.684127	.684217	.684307	90
484	.684845	.684935	.685025	.685114	.685204	90
485	.685742	.685831	.685921	.686010	.686100	89
486	2.686636	2.686726	2.686815	2.686904	2.686994	89
487	.687529	.687618	.687707	.687796	.687885	89
488	.688420	.688509	.688598	.688687	.688776	89
489	.689309	.689398	.689486	.689575	.689664	89
490	.690196	.690285	.690373	.690462	.690550	89
491	.691081	.691170	.691258	.691347	.691435	88
492	2.691965	2.692053	2.692142	2.692230	2.692318	88
493	.692847	.692935	.693023	.693111	.693199	88
494	.693727	.693815	.693903	.693991	.694078	88
495	.694605	.694693	.694781	.694868	.694956	88
496	.695482	.695569	.695657	.695744	.695832	87
497	.696356	.696444	.696531	.696618	.696706	87
498	2.697229	2.697316	2.697404	2.697491	2.697578	87
499	.698100	.698188	.698275	.698362	.698448	87
500	.698970	.699057	.699144	.699230	.699317	87
501	.699838	.699924	.700011	.700098	.700184	87
502	.700704	.700790	.700877	.700963	.701050	86
503	.701568	.701654	.701741	.701827	.701913	86
504	2.702430	2.702517	2.702603	2.702689	2.702775	86
505	.703291	.703377	.703463	.703549	.703635	86
506	.704150	.704236	.704322	.704408	.704494	86
507	.705008	.705094	.705179	.705265	.705350	86
508	.705864	.705949	.706035	.706120	.706205	85
509	.706718	.706803	.706888	.706974	.707059	85
510	.707570	.707655	.707740	.707826	.707911	85
511	2.708421	2.708506	2.708591	2.708676	2.708761	85
512	.709270	.709355	.709440	.709524	.709609	85
513	.710117	.710202	.710287	.710371	.710456	85
514	.710963	.711048	.711132	.711216	.711301	84
515	.711807	.711891	.711976	.712060	.712144	84
516	.712650	.712734	.712818	.712902	.712986	84
517	.713490	.713574	.713658	.713742	.713836	84

from 1 to 10000.

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Num	5	6	7	8	9	Unit
480	2.681693	2.681784	2.681874	2.681964	2.682055	90
481	.682596	.682686	.682777	.682867	.682957	90
482	.683497	.683587	.683677	.683767	.683857	90
483	.684396	.684486	.684576	.684666	.684756	90
484	.685294	.685383	.685473	.685563	.685652	90
485	.686189	.686279	.686368	.686457	.686547	89
486	2.687083	2.687172	2.687261	2.687351	2.687440	89
487	.687975	.688064	.688153	.688242	.688331	89
488	.688865	.688953	.689042	.689131	.689220	89
489	.689753	.689841	.689930	.690019	.690107	89
490	.690639	.690727	.690816	.690905	.690993	89
491	.691523	.691612	.691700	.691788	.691877	88
492	2.692406	2.692494	2.692583	2.692671	2.692759	88
493	.693287	.693375	.693463	.693551	.693639	88
494	.694166	.694254	.694342	.694430	.694517	88
495	.695044	.695131	.695219	.695306	.695394	88
496	.695919	.696007	.696094	.696182	.696269	87
497	.696793	.696880	.696968	.697055	.697142	87
498	2.697665	2.697752	2.697839	2.697926	2.698013	87
499	.698535	.698622	.698709	.698796	.698883	87
500	.699404	.699491	.699578	.699664	.699751	87
501	.700271	.700357	.700444	.700531	.700617	87
502	.701136	.701222	.701309	.701395	.701482	86
503	.701999	.702086	.702172	.702258	.702344	86
504	2.702861	2.702947	2.703033	2.703119	2.703205	86
505	.703721	.703807	.703893	.703979	.704065	86
506	.704579	.704665	.704751	.704837	.704922	86
507	.705436	.705522	.705607	.705693	.705778	86
508	.706291	.706376	.706462	.706547	.706632	85
509	.707144	.707229	.707315	.707400	.707485	85
510	.707996	.708081	.708166	.708251	.708336	85
511	2.708846	2.708931	2.709015	2.709100	2.709185	85
512	.709694	.709779	.709863	.709948	.710033	85
513	.710540	.710625	.710710	.710794	.710879	85
514	.711385	.711470	.711554	.711638	.711723	84
515	.712229	.712313	.712397	.712481	.712565	84
516	.713070	.713154	.713238	.713322	.713406	84
517	.713910	.713994	.714078	.714162	.714246	84

# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
518	2.714330	2.714414	2.714497	2.714581	2.714665	84
519	.715167	.715251	.715335	.715418	.715502	84
520	.716003	.716087	.716170	.716254	.716337	83
521	.716838	.716921	.717004	.717088	.717171	83
522	.717670	.717754	.717837	.717920	.718003	83
523	.718502	.718585	.718668	.718751	.718834	83
524	2.719331	2.719414	2.719497	2.719580	2.719663	83
525	.720159	.720242	.720325	.720407	.720490	83
526	.720986	.721068	.721151	.721233	.721316	82
527	.721811	.721893	.721975	.722058	.722140	82
528	.722634	.722716	.722798	.722881	.722963	82
529	.723456	.723538	.723620	.723702	.723784	82
530	2.724276	2.724358	2.724440	2.724522	2.724603	82
531	.725094	.725176	.725258	.725340	.725421	81
532	.725912	.725993	.726075	.726156	.726238	82
533	.726727	.726809	.726890	.726972	.727053	81
534	.727541	.727623	.727704	.727785	.727866	81
535	.728354	.728435	.728516	.728597	.728678	81
536	2.729165	2.729246	2.729327	2.729408	2.729489	81
537	.729974	.730055	.730136	.730217	.730298	81
538	.730782	.730863	.730944	.731024	.731105	81
539	.731589	.731669	.731750	.731830	.731911	81
540	.732394	.732474	.732555	.732635	.732715	80
541	.733197	.733277	.733358	.733438	.733518	80
542	2.733999	2.734079	2.734159	2.734240	2.734320	80
543	.734800	.734880	.734960	.735040	.735120	80
544	.735599	.735679	.735758	.735838	.735918	80
545	.736396	.736476	.736556	.736635	.736715	80
546	.737193	.737272	.737352	.737431	.737511	79
547	.737987	.738067	.738146	.738225	.738305	79
548	.738781	.738860	.738939	.739018	.739097	79
549	2.739572	2.739651	2.739730	2.739810	2.739889	79
550	.740363	.740442	.740521	.740599	.740678	79
551	.741152	.741230	.741309	.741388	.741467	79
552	.741939	.742018	.742096	.742175	.742254	79
553	.742725	.742804	.742882	.742961	.743039	78
554	.743510	.743588	.743666	.743745	.743823	78
555	.744293	.744371	.744449	.744528	.744606	78



## from 1 to 10000.

Num	5	6	7	8	9	Diff.
518	2.714749	2.714832	2.714916	2.715000	2.715084	84
519	.715586	.715669	.715753	.715836	.715920	84
520	.716421	.716504	.716588	.716671	.716754	83
521	.717254	.717338	.717421	.717504	.717587	83
522	.718086	.718169	.718253	.718336	.718419	83
523	.718917	.719000	.719083	.719165	.719248	83
524	2.719745	2.719828	2.719911	2.719994	2.720077	83
525	.720573	.720655	.720738	.720821	.720903	83
526	.721398	.721481	.721563	.721646	.721728	82
527	.722222	.722305	.722387	.722469	.722552	82
528	.723045	.723127	.723209	.723291	.723374	82
529	.723866	.723948	.724030	.724112	.724194	82
530	2.724685	2.724767	2.724849	2.724931	2.725013	82
531	.725503	.725585	.725667	.725748	.725830	82
532	.726320	.726401	.726483	.726564	.726646	82
533	.727134	.727216	.727297	.727379	.727460	81
534	.727948	.728029	.728110	.728191	.728273	81
535	.728759	.728841	.728922	.729003	.729084	81
536	2.729570	2.729651	2.729732	2.729813	2.729893	81
537	.730378	.730459	.730540	.730621	.730702	81
538	.731186	.731266	.731347	.731428	.731508	81
539	.731991	.732072	.732152	.732233	.732233	81
540	.732796	.732876	.732956	.733037	.733117	80
541	.733598	.733679	.733759	.733839	.733919	80
542	2.734400	2.734480	2.734560	2.734640	2.734720	80
543	.735200	.735279	.735359	.735439	.735519	80
544	.735998	.736078	.736157	.736237	.736317	80
545	.736795	.736874	.736954	.737034	.737113	80
546	.737590	.737670	.737749	.737829	.737908	79
547	.738384	.738463	.738543	.738622	.738701	79
548	.739177	.739256	.739335	.739414	.739493	79
549	2.739968	2.740047	2.740126	2.740205	2.740284	79
550	.740757	.740836	.740915	.740994	.741073	79
551	.741546	.741624	.741703	.741782	.741860	79
552	.742332	.742411	.742489	.742568	.742647	79
553	.743118	.743196	.743275	.743353	.743431	78
554	.743902	.743980	.744058	.744136	.744215	78
555	.744684	.744762	.744840	.744919	.744997	78

# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
556	2.745075	2.745153	2.745231	2.745309	2.745387	78
557	.745855	.745933	.746011	.746089	.746167	78
558	.746634	.746712	.746790	.746868	.746945	78
559	.747412	.747489	.747567	.747645	.747722	78
560	.748188	.748266	.748343	.748421	.748498	77
561	.748963	.749040	.749118	.749195	.749272	77
562	2.749736	2.749814	2.749891	2.749968	2.750045	77
563	.750508	.750586	.750663	.750740	.750817	77
564	.751279	.751356	.751433	.751510	.751587	77
565	.752048	.752125	.752202	.752279	.752356	77
566	.752816	.752893	.752970	.753047	.753123	77
567	.753583	.753660	.753736	.753813	.753889	77
568	2.754348	2.754425	2.754501	2.754578	2.754654	76
569	.755112	.755189	.755265	.755341	.755417	76
570	.755875	.755951	.756027	.756103	.756180	76
571	.756636	.756712	.756788	.756864	.756940	76
572	.757326	.757402	.757478	.757554	.757630	76
573	.758155	.758230	.758306	.758382	.758458	76
574	2.758912	2.758988	2.759063	2.759139	2.759214	76
575	.759668	.759743	.759819	.759894	.759970	75
576	.760422	.760498	.760573	.760649	.760724	75
577	.761176	.761251	.761326	.761402	.761477	75
578	.761928	.762003	.762078	.762153	.762228	75
579	.762679	.762754	.762829	.762904	.762978	75
580	2.763428	2.763503	2.763578	2.763653	2.763727	75
581	.764176	.764251	.764326	.764400	.764475	75
582	.764923	.764998	.765072	.765147	.765221	75
583	.765669	.765743	.765818	.765892	.765966	74
584	.766413	.766487	.766562	.766636	.766710	74
585	.767156	.767230	.767304	.767379	.767453	74
586	.767898	.767972	.768046	.768120	.768194	74
587	2.768638	2.768712	2.768786	2.768860	2.768934	74
588	.769377	.769451	.769525	.769599	.769673	74
589	.770115	.770189	.770263	.770336	.770410	74
590	.770852	.770926	.770999	.771073	.771146	74
591	.771587	.771661	.771734	.771808	.771881	73
592	.772322	.772395	.772468	.772542	.772615	73
593	.773055	.773128	.773201	.773274	.773348	73

from 1 to 10000.

NUM.	5	6	7	8	9	Diff
556	2.745465	2.745543	2.745621	2.745699	2.745777	78
557	.746245	.746323	.746401	.746479	.746556	78
558	.747023	.747101	.747179	.747256	.747334	78
559	.747800	.747878	.747955	.748033	.748110	78
560	.748576	.748653	.748731	.748808	.748885	77
561	.749350	.749427	.749504	.749582	.749659	77
562	2.750123	2.750200	2.750277	2.750354	2.750431	77
563	.750894	.750971	.751048	.751125	.751202	77
564	.751664	.751741	.751818	.751895	.751972	77
565	.752433	.752509	.752586	.752663	.752740	77
566	.753200	.753277	.753353	.753430	.753506	77
567	.753966	.754042	.754119	.754195	.754272	77
568	2.754730	2.754807	2.754883	2.754960	2.755036	76
569	.755494	.755570	.755646	.755722	.755799	76
570	.756256	.756332	.756408	.756484	.756560	76
571	.757016	.757092	.757168	.757244	.757320	76
572	.757777	.757851	.757927	.758003	.758079	76
573	.758537	.758609	.758685	.758761	.758836	76
574	2.759290	2.759366	2.759441	2.759517	2.759592	76
575	.760045	.760121	.760196	.760272	.760347	75
576	.760799	.760875	.760950	.761025	.761101	75
577	.761552	.761627	.761702	.761778	.761853	75
578	.762303	.762378	.762453	.762529	.762604	75
579	.763053	.763128	.763203	.763278	.763353	75
580	2.763802	2.763877	2.763952	2.764027	2.764101	75
581	.764550	.764624	.764699	.764774	.764848	75
582	.765296	.765370	.765445	.765520	.765594	75
583	.766041	.766115	.766190	.766264	.766338	74
584	.766785	.766859	.766933	.767007	.767082	74
585	.767527	.767601	.767675	.767749	.767823	74
586	.768268	.768342	.768416	.768490	.768564	74
587	2.769008	2.769082	2.769156	2.769230	2.769303	74
588	.769746	.769820	.769894	.769968	.770042	74
589	.770484	.770557	.770631	.770705	.770778	74
590	.771220	.771293	.771367	.771440	.771514	74
591	.771955	.772028	.772102	.772175	.772248	73
592	.772688	.772762	.772835	.772908	.772981	73
593	.773421	.773494	.773567	.773640	.773713	73

# A Table of Logarithms,

Nun	0	1	2	3	4	Diff
594	2.773786	2.773860	2.773933	2.774006	2.774079	73
59	.773517	.774590	.774663	.774736	.774809	73
596	.775246	.775319	.775392	.775465	.775538	73
597	.775974	.776047	.776120	.776193	.776265	73
598	.776701	.776774	.776846	.776919	.776992	73
599	.777427	.777499	.777572	.777644	.777717	72
600	2.778151	2.778224	2.778296	2.778368	2.778441	72
601	.778874	.778947	.779019	.779091	.779163	72
602	.779596	.779669	.779741	.779813	.779885	72
603	.780317	.780389	.780461	.780533	.780605	72
604	.781037	.781109	.781181	.781253	.781324	72
605	.781755	.781827	.781899	.781971	.782042	72
606	2.782473	2.782544	2.782616	2.782688	2.782759	72
607	.783189	.783260	.783332	.783403	.783475	71
608	.783904	.783975	.784046	.784118	.784189	71
609	.784617	.784689	.784760	.784831	.784902	71
610	.785330	.785401	.785472	.785543	.785615	71
611	.786041	.786112	.786183	.786254	.786325	71
612	2.786751	2.786822	2.786893	2.786964	2.787035	71
613	.787460	.787531	.787602	.787673	.787744	71
614	.788168	.788239	.788310	.788381	.788451	71
615	.788875	.788946	.789016	.789087	.789157	71
616	.789581	.789651	.789722	.789792	.789863	70
617	.790285	.790356	.790426	.790496	.790567	70
618	2.790988	2.791059	2.791129	2.791199	2.791269	70
619	.791691	.791761	.791831	.791901	.791971	70
620	.792392	.792462	.792532	.792602	.792672	70
621	.793092	.793162	.793231	.793301	.793371	70
622	.793790	.793860	.793930	.794000	.794070	70
623	.794488	.794558	.794627	.794697	.794767	70
624	.795185	.795254	.795324	.795393	.795463	70
625	2.795880	2.795949	2.796019	2.796088	2.796158	69
626	.796574	.796644	.796713	.796782	.796852	69
627	.797268	.797337	.797406	.797475	.797545	69
628	.797960	.798029	.798098	.798167	.798236	69
629	.798651	.798720	.798789	.798858	.798927	69
630	.799341	.799409	.799478	.799547	.799616	69
631	.800029	.800098	.800167	.800236	.800305	69



from 1 to 10000.

Num	5	6	7	8	9	Diff.
594	2.774152	2.774225	2.774298	2.774371	2.774444	73
595	.774882	.774955	.775028	.775100	.775173	73
596	.775610	.775683	.775756	.775829	.775902	73
597	.776338	.776411	.776483	.776556	.776629	73
598	.777064	.777137	.777209	.777282	.777354	73
599	.777789	.777862	.777934	.778006	.778079	72
600	2.778513	2.778585	2.778658	2.778730	2.778802	72
601	.779236	.779308	.779380	.779452	.779524	72
602	.779957	.780029	.780101	.780173	.780245	72
603	.780677	.780749	.780821	.780893	.780965	72
604	.781396	.781468	.781540	.781612	.781684	72
605	.782114	.782186	.782258	.782329	.782401	72
606	2.782831	2.782902	2.782974	2.783046	2.783117	72
607	.783546	.783618	.783689	.783761	.783832	71
608	.784261	.784332	.784403	.784475	.784546	71
609	.784974	.785045	.785116	.785187	.785259	71
610	.785686	.785757	.785828	.785899	.785970	71
611	.786396	.786467	.786538	.786609	.786680	71
612	2.787106	2.787177	2.787248	2.787319	2.787390	71
613	.787815	.787885	.787956	.788027	.788098	71
614	.788522	.788593	.788663	.788734	.788804	71
615	.789228	.789299	.789369	.789440	.789510	71
616	.789933	.790003	.790074	.790144	.790215	70
617	.790637	.790707	.790778	.790848	.790918	70
618	2.791340	2.791410	2.791480	2.791550	2.791620	70
619	.792041	.792111	.792181	.792252	.792322	70
620	.792742	.792812	.792882	.792952	.793022	70
621	.793441	.793511	.793581	.793651	.793721	70
622	.794139	.794209	.794279	.794349	.794418	70
623	.794836	.794906	.794976	.795045	.795115	70
624	.795532	.795602	.795671	.795741	.795810	70
625	2.796227	2.796297	2.796366	2.796436	2.796505	69
626	.796921	.796990	.797060	.797129	.797198	69
627	.797614	.797683	.797752	.797821	.797890	69
628	.798305	.798374	.798443	.798512	.798582	69
629	.798996	.799065	.799134	.799203	.799272	69
630	.799685	.799754	.799823	.799892	.799960	69
631	.800373	.800442	.800511	.800580	.800648	69

# A Table of Logarithms,

Nat.	0	1	2	3	4	Diff.
632	2.800717	2.800786	2.800854	2.800923	2.800992	69
633	.801404	.801472	.801541	.801609	.801678	69
634	.802089	.802158	.802226	.802295	.802368	68
635	.802774	.802842	.802910	.802979	.803047	68
636	.803457	.803525	.803594	.803662	.803730	68
637	.804139	.804208	.804276	.804344	.804412	68
638	2.804821	2.804889	2.804957	2.805025	2.805093	68
639	.805501	.805569	.805637	.805705	.805773	68
640	.806180	.806248	.806316	.806384	.806451	68
641	.806858	.806926	.806994	.807061	.807129	68
642	.807535	.807603	.807670	.807738	.807806	68
643	.808211	.808279	.808346	.808414	.808481	67
644	2.808886	2.808953	2.809021	2.809088	2.809155	67
645	.809560	.809627	.809694	.809762	.809829	67
646	.810232	.810300	.810367	.810434	.810501	67
647	.810904	.810971	.811038	.811106	.811173	67
648	.811575	.811642	.811709	.811776	.811843	67
649	.812245	.812312	.812378	.812445	.812512	67
650	2.812913	2.812980	2.813047	2.813114	2.813180	67
651	.813581	.813648	.813714	.813781	.813848	67
652	.814248	.814314	.814381	.814447	.814514	67
653	.814913	.814980	.815046	.815113	.815179	66
654	.815578	.815644	.815710	.815777	.815843	66
655	.816241	.816308	.816374	.816440	.816506	66
656	2.816904	2.816970	2.817036	2.817102	2.817169	66
657	.817565	.817631	.817698	.817764	.817830	66
658	.818226	.818292	.818358	.818424	.818490	66
659	.818885	.818951	.819017	.819083	.819149	66
660	.819544	.819610	.819675	.819741	.819807	66
661	.820201	.820267	.820333	.820398	.820464	66
662	.820858	.820924	.820989	.821055	.821120	66
663	2.821513	2.821579	2.821644	2.821710	2.821775	65
664	.822168	.822233	.822299	.822364	.822430	65
665	.822822	.822887	.822952	.823017	.823083	65
666	.823474	.823539	.823605	.823670	.823735	65
667	.824126	.824191	.824256	.824321	.824386	65
668	.824776	.824841	.824906	.824971	.825036	65
669	.825426	.825491	.825556	.825621	.825686	65

from 1 to 10000,

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Num.	5	6	7	8	9	Diff.
632	2.801060	2.801129	2.801198	2.801267	2.801335	69
633	.801747	.801815	.801884	.801952	.802021	69
634	.802432	.802500	.802568	.802637	.802705	68
635	.803116	.803184	.803252	.803321	.803389	68
636	.803798	.803867	.803935	.804003	.804071	68
637	.804480	.804548	.804616	.804685	.804753	68
638	2.805161	2.805229	2.805297	2.805365	2.805433	68
639	.805840	.805908	.805976	.806044	.806112	68
640	.806519	.806587	.806655	.806723	.806790	68
641	.807197	.807264	.807332	.807400	.807467	68
642	.807873	.807941	.808008	.808076	.808143	68
643	.808548	.808616	.808683	.808751	.808818	67
644	2.809223	2.809290	2.809358	2.809425	2.809492	67
645	.809896	.809963	.810031	.810098	.810165	67
646	.810568	.810636	.810703	.810770	.810837	67
647	.811240	.811307	.811374	.811441	.811508	67
648	.811910	.811977	.812044	.812111	.812178	67
649	.812579	.812646	.812713	.812780	.812846	67
650	2.813247	2.813314	2.813381	2.813447	2.813514	67
651	.813914	.813981	.814048	.814114	.814181	67
652	.814580	.814647	.814714	.814780	.814847	67
653	.815246	.815312	.815378	.815445	.815511	66
654	.815910	.815976	.816042	.816109	.816175	66
655	.816573	.816639	.816705	.816771	.816838	66
656	2.817235	2.817301	2.817367	2.817433	2.817499	66
657	.817896	.817962	.818028	.818094	.818160	66
658	.818556	.818622	.818688	.818754	.818819	66
659	.819215	.819281	.819346	.819412	.819478	66
660	.819873	.819939	.820004	.820070	.820136	66
661	.820530	.820595	.820661	.820727	.820792	66
662	.821186	.821251	.821317	.821382	.821448	66
663	2.821841	2.821906	2.821972	2.822037	2.822103	65
664	.822495	.822560	.822626	.822691	.822756	65
665	.823148	.823213	.823279	.823344	.823409	65
666	.823800	.823865	.823930	.823996	.824061	65
667	.824451	.824516	.824581	.824646	.824711	65
668	.825101	.825166	.825231	.825296	.825361	65
669	.825751	.825815	.825880	.825945	.826010	65

# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
670	2.826075	2.826140	2.826204	2.826269	2.826334	65
671	.826722	.826787	.826852	.826917	.826981	65
672	.827369	.827434	.827498	.827563	.827628	65
673	.828015	.828080	.828144	.828209	.828273	64
674	.828660	.828724	.828789	.828853	.828918	64
675	.829304	.829368	.829432	.829497	.829561	64
676	2.829947	2.830011	2.830075	2.830139	2.830204	64
677	.830589	.830653	.830717	.830781	.830845	64
678	.831230	.831294	.831358	.831422	.831486	64
679	.831870	.831934	.831998	.832062	.832125	64
680	.832509	.832573	.832637	.832700	.832764	64
681	.833147	.833211	.833275	.833338	.833402	64
682	2.833784	2.833848	2.833912	2.833975	2.834039	64
683	.834421	.834484	.834548	.834611	.834675	64
684	.835056	.835120	.835183	.835246	.835310	63
685	.835691	.835754	.835817	.835881	.835944	63
686	.836324	.836387	.836451	.836514	.836577	63
687	.836957	.837020	.837083	.837146	.837209	63
688	2.837588	2.837652	2.837715	2.837778	2.837841	63
689	.838219	.838282	.838345	.838408	.838471	63
690	.838849	.838912	.838975	.839038	.839101	63
691	.839478	.839541	.839604	.839667	.839729	63
692	.840106	.840169	.840232	.840295	.840357	63
693	.840733	.840796	.840859	.840921	.840984	63
694	2.841359	2.841422	2.841485	2.841547	2.841610	63
695	.841985	.842047	.842110	.842172	.842235	63
696	.842609	.842672	.842734	.842796	.842859	62
697	.843233	.843295	.843357	.843420	.843482	62
698	.843855	.843918	.843980	.844042	.844104	62
699	.844477	.844539	.844601	.844663	.844726	62
700	.845098	.845160	.845222	.845284	.845346	62
701	2.845718	2.845780	2.845842	2.845904	2.845966	62
702	.846337	.846399	.846461	.846523	.846584	62
703	.846955	.847017	.847079	.847141	.847202	62
704	.847573	.847634	.847696	.847758	.847819	62
705	.848189	.848251	.848312	.848374	.848435	62
706	.848805	.848866	.848928	.848989	.849051	61
707	.849419	.849481	.849542	.849604	.849665	61



from 1 to 10000.

Num	5	6	7	8	9	Diff
670	2.826399	2.826464	2.826528	2.826593	2.826658	65
671	.827046	.827111	.827175	.827240	.827305	65
672	.827692	.827757	.827821	.827886	.827950	65
673	.828338	.828402	.828466	.828531	.828595	64
674	.828982	.829046	.829111	.829175	.829239	64
675	.829625	.829690	.829754	.829818	.829882	64
676	2.830268	2.830332	2.830396	2.830460	2.830524	64
677	.830909	.830973	.831037	.831102	.831166	64
678	.831550	.831614	.831678	.831742	.831806	64
679	.832189	.832253	.832317	.832381	.832445	64
680	.832828	.832892	.832956	.833019	.833083	64
681	.833466	.833530	.833593	.833657	.833721	64
682	2.834103	2.834166	2.834230	2.834293	2.834357	64
683	.834738	.834802	.834866	.834929	.834993	64
684	.835373	.835437	.835500	.835564	.835627	63
685	.836007	.836071	.836134	.836197	.836261	63
686	.836640	.836704	.836767	.836830	.836893	63
687	.837273	.837336	.837399	.837462	.837525	63
688	2.837904	2.837967	2.838030	2.838093	2.838156	63
689	.838534	.838597	.838660	.838723	.838786	63
690	.839164	.839227	.839289	.839352	.839415	63
691	.839792	.839855	.839918	.839981	.840043	63
692	.840420	.840482	.840545	.840608	.840671	63
693	.841046	.841109	.841172	.841234	.841297	63
694	2.841672	2.841735	2.841797	2.841860	2.841922	63
695	.842297	.842360	.842422	.842484	.842547	62
696	.842921	.842983	.843046	.843108	.843170	62
697	.843544	.843606	.843669	.843731	.843793	62
698	.844166	.844229	.844291	.844353	.844415	62
699	.844788	.844850	.844912	.844974	.845036	62
700	.845408	.845470	.845532	.845594	.845656	62
701	2.846028	2.846090	2.846151	2.846213	2.846275	62
702	.846646	.846708	.846770	.846832	.846893	62
703	.847264	.847326	.847388	.847449	.847511	62
704	.847881	.847943	.848004	.848066	.848127	62
705	.848497	.848559	.848620	.848682	.848743	62
706	.849112	.849174	.849235	.849296	.849358	61
707	.849726	.849788	.849849	.849911	.849972	61

# A Table of Logarithms,

Num.	0	1	2	3	4	Diff.
708	2.850033	2.850095	2.850156	2.850217	2.850279	61
709	.850646	.850707	.850769	.850830	.850891	61
710	.851258	.851319	.851381	.851442	.851503	61
711	.851870	.851931	.851992	.852053	.852114	61
712	.852480	.852541	.852602	.852663	.852724	61
713	.853089	.853150	.853211	.853272	.853333	61
714	2.853698	2.853759	2.853820	2.853881	2.853941	61
715	.854306	.854367	.854427	.854488	.854549	61
716	.854913	.854974	.855034	.855095	.855156	61
717	.855519	.855580	.855640	.855701	.855761	61
718	.856124	.856185	.856245	.856306	.856366	60
719	.856729	.856789	.856850	.856910	.856970	60
720	2.857332	2.857393	2.857453	2.857513	2.857574	60
721	.857935	.857995	.858056	.858116	.858176	60
722	.858537	.858597	.858657	.858718	.858778	60
723	.859138	.859198	.859258	.859318	.859378	60
724	.859739	.859798	.859858	.859918	.859978	60
725	.860338	.860398	.860458	.860518	.860578	60
726	2.860937	2.860997	2.861056	2.861116	2.861176	60
727	.861534	.861594	.861654	.861714	.861773	60
728	.862131	.862191	.862251	.862310	.862370	60
729	.862727	.862787	.862847	.862906	.862966	60
730	.863323	.863382	.863442	.863501	.863561	59
731	.863917	.863977	.864036	.864096	.864155	59
732	2.864511	2.864570	2.864630	2.864689	2.864748	59
733	.865104	.865163	.865222	.865282	.865341	59
734	.865696	.865755	.865814	.865873	.865933	59
735	.866287	.866346	.866405	.866465	.866524	59
736	.866878	.866937	.866996	.867055	.867114	59
737	.867467	.867526	.867585	.867644	.867703	59
738	.868056	.868115	.868174	.868233	.868292	59
739	2.868644	2.868703	2.868762	2.868821	2.868879	59
740	.869232	.869290	.869349	.869408	.869466	59
741	.869818	.869877	.869935	.869994	.870053	59
742	.870404	.870462	.870521	.870579	.870638	58
743	.870989	.871047	.871106	.871164	.871223	58
744	.871573	.871631	.871690	.871748	.871806	58
745	.872156	.872215	.872273	.872331	.872389	58

## from 1 to 10000.

Num	5	6	7	8	9	Diff
708	2.850340	2.850401	2.850462	2.850524	2.850585	61
709	.850952	.851014	.851075	.851136	.851197	61
710	.851564	.851625	.851686	.851747	.851808	61
711	.852175	.852236	.852297	.852358	.852419	61
712	.852785	.852846	.852907	.852968	.853029	61
713	.853394	.853455	.853516	.853576	.853637	61
714	2.854002	2.854063	2.854124	2.854184	2.854245	61
715	.854610	.854670	.854731	.854792	.854852	61
716	.855216	.855277	.855337	.855398	.855459	61
717	.855822	.855882	.855943	.856003	.856064	61
718	.856427	.856487	.856548	.856608	.856668	60
719	.857031	.857091	.857151	.857212	.857272	60
720	2.857634	2.857694	2.857754	2.857815	2.857875	60
721	.858236	.858296	.858357	.858417	.858477	60
722	.858838	.858898	.858958	.859018	.859078	60
723	.859438	.859499	.859559	.859619	.859679	60
724	.860038	.860098	.860158	.860218	.860278	60
725	.860637	.860697	.860757	.860817	.860877	60
726	2.861236	2.861295	2.861355	2.861415	2.861475	60
727	.861833	.861893	.861952	.862012	.862072	60
728	.862430	.862489	.862549	.862608	.862668	60
729	.863025	.863085	.863144	.863204	.863263	60
730	.863620	.863680	.863739	.863798	.863858	59
731	.864214	.864274	.864333	.864392	.864452	59
732	2.864808	2.864867	2.864926	2.864985	2.865045	59
733	.865400	.865459	.865518	.865578	.865637	59
734	.865992	.866051	.866110	.866169	.866228	59
735	.866583	.866642	.866701	.866760	.866819	59
736	.867173	.867232	.867291	.867350	.867409	59
737	.867762	.867821	.867880	.867939	.867997	59
738	.868350	.868409	.868468	.868527	.868586	59
739	2.868938	2.868997	2.869056	2.869114	2.869173	59
740	.869525	.869584	.869642	.869701	.869760	59
741	.870111	.870170	.870228	.870287	.870345	59
742	.870696	.870755	.870813	.870872	.870930	58
743	.871281	.871339	.871398	.871456	.871515	58
744	.871865	.871923	.871981	.872040	.872098	58
745	.872448	.872506	.872564	.872622	.872681	58

# A Table of Logarithms,

Nu.	0	1	2	3	4	Diff.
746	2.872739	2.872797	2.872855	2.872913	2.872972	58
747	.873321	.873379	.873437	.873495	.873553	58
748	.873902	.873960	.874018	.874076	.874134	58
749	.874482	.874540	.874598	.874656	.874714	58
750	.875061	.875119	.875177	.875235	.875293	58
751	.875640	.875698	.875756	.875813	.875871	58
752	2.876218	2.876276	2.876333	2.876391	2.876449	58
753	.876795	.876853	.876910	.876968	.877026	58
754	.877371	.877429	.877486	.877544	.877602	58
755	.87794	.878004	.878062	.878119	.878177	57
756	.87852	.878579	.878637	.878694	.878751	57
757	.879	.879153	.879211	.879268	.879325	57
758	2.879669	2.879726	2.879784	2.879841	2.879898	57
759	.88024	.880299	.880356	.880413	.880471	57
760	.880814	.880871	.880928	.880985	.881042	57
761	.88138	.881442	.881499	.881556	.881613	57
762	.881955	.882012	.882069	.882126	.882183	57
763	.882524	.882581	.882638	.882695	.882752	57
764	2.883093	2.883150	2.883207	2.883264	2.883321	57
765	.883661	.883718	.883775	.883832	.883889	57
766	.884229	.884285	.884342	.884399	.884455	57
767	.884795	.884852	.884909	.884965	.885022	57
768	.885361	.885418	.885474	.885531	.885587	57
769	.885926	.885983	.886039	.886096	.886152	56
770	2.88649	2.886547	2.886603	2.886660	2.886716	56
771	.887054	.887111	.887167	.887223	.887280	56
772	.887617	.887673	.887730	.887786	.887842	56
773	.888179	.888236	.888292	.888348	.888404	56
774	.888741	.888797	.888853	.888909	.888965	56
775	.889302	.889358	.889414	.889470	.889526	56
776	.889862	.889918	.889974	.890030	.890086	56
777	2.890421	2.890477	2.890533	2.890589	2.890644	56
778	.890980	.891035	.891091	.891147	.891203	56
779	.891537	.891593	.891649	.891705	.891760	56
780	.892095	.892150	.892206	.892262	.892317	56
781	.892651	.892707	.892762	.892818	.892873	56
782	.893207	.893262	.893318	.893373	.893429	56
783	.893762	.893817	.893873	.893928	.893984	55



from 1 to 10000.

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Num	5	6	7	8	9	Diff.
746	2.873030	2.873088	2.873146	2.873204	2.873262	58
747	.873611	.873669	.873727	.873785	.873843	58
748	.874192	.874250	.874308	.874366	.874424	58
749	.874772	.874830	.874887	.874945	.875003	58
750	.875351	.875409	.875466	.875524	.875582	58
751	.875929	.875987	.876044	.876102	.876160	58
752	2.876506	2.876564	2.876622	2.876680	2.876737	58
753	.877083	.877141	.877198	.877256	.877314	58
754	.877659	.877717	.877774	.877832	.877889	58
755	.878234	.878292	.878349	.878407	.878464	57
756	.878809	.878866	.878922	.878981	.879038	57
757	.879383	.879440	.879497	.879555	.879612	57
758	2.879956	2.880013	2.880070	2.880127	2.880185	57
759	.880528	.880585	.880642	.880699	.880756	57
760	.881099	.881156	.881213	.881270	.881328	57
761	.881670	.881727	.881784	.881841	.881898	57
762	.882240	.882297	.882354	.882411	.882468	57
763	.882809	.882866	.882923	.882980	.883036	57
764	2.883377	2.883434	2.883491	2.883548	2.883605	57
765	.883945	.884002	.884059	.884115	.884172	57
766	.884512	.884569	.884625	.884682	.884739	57
767	.885078	.885135	.885191	.885248	.885305	57
768	.885644	.885700	.885757	.885813	.885870	57
769	.886209	.886265	.886321	.886377	.886434	56
770	2.886773	2.886829	2.886885	2.886942	2.886998	56
771	.887336	.887392	.887448	.887505	.887561	56
772	.887898	.887955	.888011	.888067	.888123	56
773	.888460	.888516	.888573	.888629	.888685	56
774	.889021	.889077	.889133	.889190	.889246	56
775	.889582	.889638	.889694	.889750	.889806	56
776	.890141	.890197	.890253	.890309	.890365	56
777	2.890700	2.890755	2.890812	2.890868	2.890924	56
778	.891259	.891314	.891370	.891426	.891482	56
779	.891816	.891872	.891927	.891983	.892039	56
780	.892373	.892428	.892484	.892540	.892595	56
781	.892929	.892985	.893040	.893096	.893151	56
782	.893484	.893540	.893595	.893651	.893706	56
783	.894039	.894094	.894150	.894205	.894261	55

# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
784	2.894316	2.894371	2.894427	2.894482	2.894538	55
785	.894870	.894925	.894980	.895036	.895091	55
786	.895422	.895478	.895533	.895588	.895643	55
787	.895975	.896030	.896085	.896140	.896195	55
788	.896526	.896581	.896636	.896691	.896747	55
789	.897077	.897132	.897187	.897242	.897297	55
790	2.897627	2.897682	2.897737	2.897792	2.897847	55
791	.898176	.898231	.898286	.898341	.898396	55
792	.898725	.898780	.898835	.898890	.898944	55
793	.899273	.899328	.899383	.899437	.899492	55
794	.899820	.899875	.899930	.899985	.900039	55
795	.900367	.900422	.900476	.900531	.900586	55
796	2.900913	2.900968	2.901022	2.901077	2.901131	55
797	.901458	.901513	.901567	.901622	.901676	54
798	.902003	.902057	.902112	.902166	.902220	54
799	.902547	.902601	.902655	.902710	.902764	54
800	.903090	.903144	.903198	.903253	.903307	54
801	.903632	.903687	.903741	.903795	.903849	54
802	2.904174	2.904228	2.904283	2.904337	2.904391	54
803	.904715	.904770	.904824	.904878	.904932	54
804	.905256	.905310	.905364	.905418	.905472	54
805	.905796	.905850	.905904	.905958	.906012	54
806	.906335	.906389	.906443	.906497	.906550	54
807	.906873	.906927	.906981	.907035	.907089	54
808	2.907411	2.907465	2.907519	2.907573	2.907626	54
809	.907948	.908002	.908056	.908109	.908163	54
810	.908485	.908539	.908592	.908646	.908699	54
811	.909021	.909074	.909128	.909181	.909235	53
812	.909556	.909609	.909663	.909716	.909770	53
813	.910090	.910144	.910197	.910251	.910304	53
814	.910624	.910678	.910731	.910784	.910838	53
815	2.911158	2.911211	2.911264	2.911317	2.911371	53
816	.911690	.911743	.911797	.911850	.911903	53
817	.912222	.912275	.912328	.912381	.912435	53
818	.912753	.912806	.912859	.912912	.912966	53
819	.913284	.913337	.913390	.913443	.913496	53
820	.913814	.913867	.913920	.913973	.914026	53
821	.914343	.914396	.914449	.914502	.914555	53

from 1 to 10000.

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Num.	5	6	7	8	9	Diff.
784	2.894593	2.894648	2.894704	2.894759	2.894814	55
785	.895146	.895201	.895257	.895312	.895367	55
786	.895699	.895754	.895809	.895864	.895919	55
787	.896251	.896306	.896361	.896416	.896471	55
788	.896802	.896857	.896912	.896967	.897022	55
789	.897352	.897407	.897462	.897517	.897572	55
790	2.897902	2.897957	2.898012	2.898067	2.898122	55
791	.898451	.898506	.898561	.898615	.898670	55
792	.898999	.899054	.899109	.899164	.899218	55
793	.899547	.899602	.899656	.899711	.899766	55
794	.900094	.900149	.900203	.900258	.900312	55
795	.900640	.900695	.900749	.900804	.900858	55
796	2.901186	2.901240	2.901295	2.901349	2.901404	55
797	.901731	.901785	.901840	.901894	.901948	54
798	.902275	.902329	.902384	.902438	.902492	54
799	.902818	.902873	.902927	.902981	.903036	54
800	.903361	.903416	.903470	.903524	.903578	54
801	.903903	.903958	.904012	.904066	.904120	54
802	2.904445	2.904499	2.904553	2.904607	2.904661	54
803	.904986	.905040	.905094	.905148	.905202	54
804	.905526	.905580	.905634	.905688	.905742	54
805	.906065	.906119	.906173	.906227	.906281	54
806	.906604	.906658	.906712	.906766	.906820	54
807	.907142	.907196	.907250	.907304	.907358	54
808	2.907680	2.907734	2.907787	2.907841	2.907895	54
809	.908217	.908270	.908324	.908378	.908431	54
810	.908753	.908807	.908860	.908914	.908967	54
811	.909288	.909342	.909395	.909449	.909502	54
812	.909823	.909877	.909930	.909984	.910037	53
813	.910358	.910411	.910464	.910518	.910571	53
814	.910891	.910944	.910998	.911051	.911104	53
815	2.911424	2.911477	2.911530	2.911584	2.911637	53
816	.911956	.912009	.912063	.912116	.912169	53
817	.912488	.912541	.912594	.912647	.912700	53
818	.913019	.913072	.913125	.913178	.913231	53
819	.913549	.913602	.913655	.913708	.913761	53
820	.914079	.914131	.914184	.914237	.914290	53
821	.914608	.914660	.914713	.914766	.914819	53

# A table of Logarithms,

Nun	0	1	2	3	4	Diff.
822	2.914872	2.914925	2.914977	2.915030	2.915083	53
823	.915400	.915453	.915505	.915558	.915611	53
824	.915927	.915980	.916033	.916085	.916138	53
825	.916454	.916507	.916559	.916612	.916664	53
826	.916980	.917033	.917085	.917138	.917190	53
827	.917505	.917558	.917610	.917663	.917715	52
828	2.918030	2.918083	2.918135	2.918188	2.918240	52
829	.918554	.918607	.918659	.918712	.918764	52
830	.919078	.919130	.919183	.919235	.919287	52
831	.919601	.919653	.919705	.919758	.919810	52
832	.920123	.920175	.920228	.920280	.920332	52
833	.920645	.920697	.920749	.920801	.920853	52
834	2.921166	2.921218	2.921270	2.921322	2.921374	52
835	.921686	.921738	.921790	.921842	.921894	52
836	.922206	.922258	.922310	.922362	.922414	52
837	.922725	.922777	.922829	.922881	.922933	52
838	.923244	.923296	.923348	.923399	.923451	52
839	.923762	.923814	.923865	.923917	.923969	52
840	2.924279	2.924331	2.924383	2.924434	2.924486	52
841	.924796	.924848	.924899	.924951	.925002	52
842	.925312	.925364	.925415	.925467	.925518	52
843	.925828	.925879	.925931	.925982	.926034	51
844	.926342	.926394	.926445	.926497	.926548	51
845	.926857	.926908	.926959	.927011	.927062	51
846	2.927370	2.927422	2.927473	2.927524	2.927576	51
847	.927883	.927935	.927986	.928037	.928088	51
848	.928396	.928447	.928498	.928549	.928601	51
849	.928908	.928959	.929010	.929061	.929112	51
850	.929419	.929470	.929521	.929572	.929623	51
851	.929930	.929981	.930032	.930083	.930134	51
852	.930440	.930491	.930541	.930592	.930643	51
853	2.930949	2.931000	2.931051	2.931102	2.931153	51
854	.931458	.931509	.931560	.931610	.931661	51
855	.931966	.932017	.932068	.932118	.932169	51
856	.932474	.932524	.932575	.932626	.932677	51
857	.932981	.933031	.933082	.933133	.933183	51
858	.933487	.933538	.933588	.933639	.933690	51
859	.933993	.934044	.934094	.934145	.934195	51



from 1 to 10000.

Num	5	6	7	8	9	Diff.
822	2.915136	2.915189	2.915241	2.915294	2.915347	53
823	.915664	.915716	.915769	.915822	.915874	53
824	.916191	.916243	.916296	.916349	.916401	53
825	.916717	.916770	.916822	.916875	.916927	53
826	.917243	.917295	.917348	.917400	.917453	53
827	.917768	.917820	.917873	.917925	.917978	52
828	2.918292	2.918345	2.918397	2.918450	2.918502	52
829	.918816	.918869	.918921	.918973	.919026	52
830	.919340	.919392	.919444	.919496	.919549	52
831	.919862	.919914	.919967	.920019	.920071	52
832	.920384	.920436	.920489	.920541	.920593	52
833	.920906	.920958	.921010	.921062	.921114	52
834	2.921426	2.921478	2.921530	2.921582	2.921634	52
835	.921946	.921998	.922050	.922102	.922154	52
836	.922466	.922518	.922570	.922622	.922674	52
837	.922985	.923037	.923088	.923140	.923192	52
838	.923503	.923555	.923607	.923658	.923710	52
839	.924021	.924072	.924124	.924176	.924228	52
840	2.924538	2.924589	2.924641	2.924693	2.924744	52
841	.925054	.925106	.925157	.925209	.925260	52
842	.925570	.925621	.925673	.925724	.925776	52
843	.926085	.926137	.926188	.926239	.926291	51
844	.926600	.926651	.926702	.926754	.926805	51
845	.927114	.927165	.927216	.927268	.927319	51
846	2.927627	2.927678	2.927730	2.927781	2.927832	51
847	.928140	.928191	.928242	.928293	.928345	51
848	.928652	.928703	.928754	.928805	.928856	51
849	.929163	.929214	.929266	.929317	.929368	51
850	.929674	.929725	.929776	.929827	.929878	51
851	.930185	.930236	.930287	.930338	.930389	51
852	.930694	.930745	.930796	.930847	.930898	51
853	2.931205	2.931254	2.931305	2.931356	2.931407	51
854	.931712	.931763	.931814	.931864	.931915	51
855	.932220	.932271	.932321	.932372	.932423	51
856	.932727	.932778	.932829	.932879	.932930	51
857	.933234	.933285	.933335	.933386	.933437	51
858	.933740	.933791	.933841	.933892	.933943	51
859	.934246	.934296	.934347	.934397	.934448	51

# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
860	2.934498	2.934549	2.934599	2.934650	2.934700	50
861	.935003	.935054	.935104	.935154	.935205	50
862	.935507	.935558	.935608	.935658	.935709	50
863	.936011	.936061	.936111	.936162	.936212	50
864	.936514	.936564	.936614	.936664	.936715	50
865	.937016	.937066	.937116	.937167	.937217	50
866	2.937518	2.937568	2.937618	2.937668	2.937718	50
867	.938019	.938069	.938119	.938169	.938219	50
868	.938520	.938570	.938620	.938706	.938720	50
869	.939020	.939070	.939120	.939170	.939220	50
870	.939519	.939569	.939619	.939669	.939719	50
871	.940018	.940068	.940118	.940168	.940218	50
872	2.940516	2.940566	2.940616	2.940666	2.940716	50
873	.941014	.941064	.941114	.941163	.941213	50
874	.941511	.941561	.941611	.941660	.941710	50
875	.942008	.942058	.942107	.942157	.942206	50
876	.942504	.942554	.942603	.942653	.942702	50
877	.943000	.943049	.943099	.943148	.943198	49
878	2.943494	2.943544	2.943593	2.943643	2.943692	49
879	.943989	.944038	.944088	.944137	.944186	49
880	.944483	.944532	.944581	.944631	.944690	49
881	.944976	.945025	.945074	.945124	.945173	49
882	.945469	.945518	.945567	.945616	.945665	49
883	.945961	.946010	.946059	.946108	.946157	49
884	2.946452	2.946501	2.946550	2.946600	2.946649	49
885	.946943	.946992	.947041	.947090	.947139	49
886	.947434	.947483	.947532	.947581	.947630	49
887	.947924	.947973	.948021	.948070	.948119	49
888	.948413	.948462	.948511	.948560	.948608	49
889	.948902	.948951	.948999	.949048	.949097	49
890	.949390	.949439	.949488	.949536	.949585	49
891	2.949878	2.949926	2.949975	2.950023	2.950073	49
892	.950365	.950413	.950462	.950511	.950560	49
893	.950851	.950900	.950949	.950997	.951046	49
894	.951337	.951386	.951435	.951483	.951532	49
895	.951823	.951872	.951920	.951969	.952017	49
896	.952308	.952356	.952405	.952453	.952502	48
897	.952792	.952841	.952889	.952938	.952986	48

from 1 to 10000.

Num.	5	6	7	8	9	Diff.
860	2.934751	2.934801	2.934852	2.934902	2.934953	50
861	.935255	.935306	.935356	.935406	.935457	50
862	.935759	.935809	.935860	.935910	.935960	50
863	.936262	.936313	.936363	.936413	.936463	50
864	.936765	.936815	.936865	.936916	.936966	50
865	.937267	.937317	.937367	.937418	.937468	50
866	2.937769	2.937819	2.937869	2.937919	2.937969	50
867	.938269	.938319	.938370	.938420	.938470	50
868	.938770	.938820	.938870	.938920	.938970	50
869	.939275	.939319	.939369	.939419	.939469	50
870	.939769	.939819	.939868	.939918	.939968	50
871	.940267	.940317	.940367	.940417	.940467	50
872	2.940765	2.940815	2.940865	2.940915	2.940964	50
873	.941263	.941313	.941362	.941412	.941462	50
874	.941760	.941809	.941859	.941909	.941958	50
875	.942256	.942306	.942355	.942405	.942454	50
876	.942752	.942801	.942851	.942900	.942950	50
877	.943247	.943297	.943346	.943396	.943445	49
878	2.943742	2.943791	2.943841	2.943890	2.943939	49
879	.944236	.944285	.944335	.944384	.944433	49
880	.944729	.944779	.944828	.944877	.944927	49
881	.945222	.945272	.945321	.945370	.945419	49
882	.945715	.945764	.945813	.945863	.945911	49
883	.946207	.946256	.946305	.946354	.946403	49
884	2.946698	2.946747	2.946796	2.946845	2.946894	49
885	.947189	.947238	.947287	.947336	.947385	49
886	.947679	.947728	.947777	.947826	.947875	49
887	.948168	.948217	.948266	.948315	.948364	49
888	.948657	.948706	.948755	.948804	.948853	49
889	.949146	.949195	.949244	.949292	.949341	49
890	.949633	.949683	.949731	.949780	.949829	49
891	2.950121	2.950170	2.950219	2.950267	2.950316	49
892	.950608	.950657	.950705	.950754	.950803	49
893	.951095	.951143	.951192	.951240	.951289	49
894	.951580	.951629	.951677	.951726	.951774	49
895	.952066	.952114	.952163	.952211	.952259	48
896	.952550	.952599	.952647	.952696	.952744	48
897	.953034	.953083	.953131	.953180	.953228	48

# A Table of Logarithms,

Num.	0	1	2	3	4	Diff.
898	2.953276	2.953325	2.953373	2.953421	2.953470	48
899	.953760	.953808	.953856	.953905	.953953	48
900	.954242	.954291	.954339	.954387	.954435	48
901	.954725	.954773	.954821	.954869	.955918	48
902	.955206	.955255	.955303	.955351	.955399	48
903	.955688	.955736	.955784	.955832	.955880	48
904	2.956168	2.956216	2.956264	2.956312	2.956360	48
905	.956649	.956697	.956744	.956792	.956840	48
906	.957128	.957176	.957224	.957272	.957320	48
907	.957607	.957655	.957707	.957751	.957799	48
908	.958086	.958134	.958181	.958229	.958277	48
909	.958564	.958612	.958659	.958707	.958755	48
910	2.959041	2.959089	2.959137	2.959184	2.959232	48
911	.959518	.959566	.959614	.959661	.959709	48
912	.959995	.960042	.960090	.960138	.960185	48
913	.960471	.960518	.960566	.960613	.960661	48
914	.960946	.960994	.961041	.961089	.961136	47
915	.961421	.961468	.961516	.961563	.961611	47
916	2.961895	2.961943	2.961990	2.962038	2.962085	47
917	.962369	.962417	.962464	.962511	.962559	47
918	.962843	.962890	.962937	.962985	.963032	47
919	.963315	.963363	.963410	.963457	.963504	47
920	.963788	.963835	.963882	.963929	.963977	47
921	.964260	.964307	.964354	.964401	.964448	47
922	2.964731	2.964778	2.964825	2.964872	2.964919	47
923	.965202	.965249	.965296	.965343	.965390	47
924	.965672	.965719	.965766	.965813	.965860	47
925	.966142	.966189	.966236	.966283	.966329	47
926	.966611	.966658	.966705	.966752	.966798	47
927	.967080	.967127	.967173	.967220	.967267	47
928	.967548	.967595	.967642	.967688	.967735	47
929	2.968016	2.968062	2.968109	2.968156	2.968203	47
930	.968483	.968530	.968576	.968623	.968670	47
931	.968950	.968996	.969043	.969090	.969136	47
932	.969416	.969462	.969509	.969556	.969602	47
933	.969882	.969928	.969975	.970021	.970068	47
934	.970347	.970393	.970440	.970486	.970533	46
935	.970812	.970858	.970904	.970951	.970997	46



from 1 to 10000.

Num	5	6	7	8	9	Diff
898	2.953518	2.953566	2.953615	2.953663	2.953711	48
899	.954001	.954049	.954098	.954146	.954194	48
900	.954484	.954532	.954580	.954628	.954677	48
901	.954966	.955014	.955062	.955110	.955158	48
902	.955447	.955495	.955543	.955591	.955640	48
903	.955928	.955976	.956024	.956072	.956120	48
904	2.956409	2.956457	2.956505	2.956553	2.956601	48
905	.956888	.956936	.956984	.957032	.957080	48
906	.957368	.957416	.957464	.957511	.957559	48
907	.957847	.957894	.957942	.957990	.958038	48
908	.958325	.958373	.958420	.958468	.958516	48
909	.958803	.958850	.958898	.958946	.958994	48
910	2.959280	2.959328	2.959375	2.959423	2.959471	48
911	.959757	.959804	.959852	.959900	.959947	48
912	.960233	.960280	.960328	.960376	.960423	48
913	.960708	.960756	.960804	.960851	.960899	48
914	.961184	.961231	.961279	.961326	.961374	47
915	.961658	.961706	.961753	.961801	.961848	47
916	2.962132	2.962180	2.962227	2.962275	2.962322	47
917	.962606	.962653	.962701	.962748	.962795	47
918	.963079	.963126	.963174	.963221	.963268	47
919	.963552	.963599	.963646	.963693	.963741	47
920	.964024	.964071	.964118	.964165	.964212	47
921	.964495	.964542	.964590	.964637	.964684	47
922	2.964966	2.965013	2.965060	2.965108	2.965155	47
923	.965437	.965484	.965531	.965578	.965625	47
924	.965907	.965954	.966001	.966048	.966095	47
925	.966376	.966423	.966470	.966517	.966564	47
926	.966845	.966892	.966939	.966986	.967033	47
927	.967314	.967361	.967408	.967454	.967501	47
928	.967782	.967829	.967875	.967922	.967969	47
929	2.968249	2.968296	2.968343	2.968389	2.968436	47
930	.968716	.968763	.968810	.968856	.968903	47
931	.969183	.969229	.969276	.969323	.969369	47
932	.969649	.969695	.969742	.969788	.969835	47
933	.970114	.970161	.970207	.970254	.970300	47
934	.970579	.970626	.970672	.970719	.970765	46
935	.971044	.971090	.971137	.971183	.971229	46

# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
936	2.971276	2.971322	2.971369	2.971415	2.971461	46
937	.971740	.971786	.971832	.971879	.971925	46
938	.972203	.972249	.972295	.972342	.972388	46
939	.972666	.972712	.972758	.972804	.972851	46
940	.973128	.973174	.973220	.973266	.973313	46
941	.973590	.973636	.973682	.973728	.973774	46
942	2.974051	2.974097	2.974143	2.974189	2.974235	46
943	.974512	.974558	.974604	.974650	.974696	46
944	.974972	.975018	.975064	.975110	.975156	46
945	.975432	.975478	.975524	.975570	.975616	46
946	.975891	.975937	.975983	.976029	.976075	46
947	.976350	.976396	.976442	.976487	.976533	46
948	2.976808	2.976854	2.976900	2.976946	2.976991	46
949	.977266	.977312	.977358	.977403	.977449	46
950	.977724	.977769	.977815	.977861	.977906	46
951	.978180	.978226	.978272	.978317	.978363	46
952	.978637	.978683	.978728	.978774	.978819	46
953	.979093	.979138	.979184	.979230	.979275	46
954	2.979548	2.979594	2.979639	2.979685	2.979730	46
955	.980003	.980049	.980094	.980140	.980185	45
956	.980458	.980503	.980549	.980594	.980640	45
957	.980912	.980957	.981003	.981003	.981093	45
958	.981365	.981411	.981456	.981501	.981547	45
959	.981819	.981864	.981909	.981954	.982000	45
960	2.982271	2.982316	2.982362	2.982407	2.982452	45
961	.982723	.982769	.982814	.982859	.982904	45
962	.983175	.983220	.983265	.983310	.983356	45
963	.983626	.983671	.983716	.983762	.983807	45
964	.984077	.984122	.984167	.984212	.984257	45
965	.984527	.984572	.984617	.984662	.984707	45
966	.984977	.985022	.985067	.985112	.985157	45
967	2.985426	2.985471	2.985516	2.985561	2.985606	45
968	.985875	.985920	.985965	.986010	.986055	45
969	.986324	.986369	.986413	.986458	.986503	45
970	.986772	.986816	.986861	.986906	.986951	45
971	.987219	.987264	.987309	.987353	.987398	45
972	.987666	.987711	.987756	.987800	.987845	45
973	.988113	.988157	.988202	.988247	.988291	45

Num	5	6	7	8	9	Diff.
936	2.971508	2.971554	2.971600	2.971647	2.971693	46
937	.971971	.972018	.972064	.972110	.972156	46
938	.972434	.972480	.972527	.972573	.972619	46
939	.972897	.972943	.972989	.973035	.973082	46
940	.973359	.973405	.973451	.973497	.973543	46
941	.973820	.973866	.973913	.973959	.974005	46
942	2.974281	2.974327	2.974373	2.974420	2.974466	46
943	.974742	.974788	.974834	.974880	.974926	46
944	.975202	.975248	.975294	.975340	.975386	46
945	.975661	.975707	.975753	.975799	.975845	46
946	.976121	.976166	.976212	.976258	.976304	46
947	.976579	.976625	.976671	.976717	.976762	46
948	2.977037	2.977083	2.977129	2.977175	2.977220	46
949	.977495	.977541	.977586	.977632	.977678	46
950	.977952	.977998	.978043	.978089	.978135	46
951	.978409	.978454	.978500	.978546	.978591	46
952	.978865	.978911	.978956	.979002	.979047	46
953	.979321	.979366	.979412	.979457	.979503	46
954	2.979776	2.979821	2.979867	2.979912	2.979958	46
955	.980231	.980276	.980322	.980367	.980412	45
956	.980685	.980730	.980776	.980821	.980867	45
957	.981139	.981184	.981229	.981275	.981320	45
958	.981592	.981637	.981683	.981728	.981773	45
959	.982045	.982090	.982135	.982181	.982226	45
960	2.982497	2.982543	2.982588	2.982633	2.982678	45
961	.982949	.982994	.983040	.983085	.983130	45
962	.983401	.983446	.983491	.983536	.983581	45
963	.983852	.983897	.983942	.983987	.984032	45
964	.984302	.984347	.984392	.984437	.984482	45
965	.984752	.984797	.984842	.984887	.984932	45
966	.985202	.985247	.985292	.985337	.985382	45
967	2.985651	2.985696	2.985741	2.985786	2.985830	45
968	.986100	.986144	.986189	.986234	.986279	45
969	.986548	.986593	.986637	.986682	.986727	45
970	.986995	.987040	.987085	.987130	.987174	45
971	.987443	.987487	.987532	.987577	.987622	45
972	.987890	.987934	.987979	.988024	.988068	45
973	.988336	.988381	.988425	.988470	.988514	45

# A Table of Logarithms,

Num	0	1	2	3	4	Diff.
974	2.988559	2.988603	2.988648	2.988693	2.988737	45
975	.989005	.989049	.989094	.989138	.989183	45
976	.989450	.989494	.989539	.989583	.989628	44
977	.989895	.989939	.989983	.990028	.990072	44
978	.990339	.990383	.990428	.990472	.990516	44
979	2.990783	2.990827	2.990871	2.990916	2.990960	44
980	.991226	.991270	.991315	.991359	.991403	44
981	.991669	.991713	.991757	.991802	.991846	44
982	.992111	.992156	.992200	.992244	.992288	44
983	.992553	.992598	.992642	.992686	.992730	44
984	2.992995	2.993039	2.993083	2.993127	2.993172	44
985	.993436	.993480	.993524	.993568	.993613	44
986	.993877	.993921	.993965	.994009	.994053	44
987	.994367	.994361	.994405	.994449	.994493	44
988	.994757	.994801	.994845	.994889	.994933	44
989	2.995196	2.995240	2.995284	2.995328	2.995372	44
990	.995635	.995679	.995723	.995767	.995811	44
991	.996074	.996117	.996161	.996205	.996249	44
992	.996512	.996555	.996599	.996643	.996687	44
993	.996949	.996993	.997037	.997080	.997124	44
994	2.997386	2.997430	2.997474	2.997517	2.997561	44
995	.997823	.997867	.997910	.997954	.997998	44
996	.998259	.998303	.998346	.998390	.998434	44
997	.998695	.998739	.998782	.998826	.998869	44
998	.999130	.999174	.999218	.999261	.999305	44
999	.999565	.999609	.999652	.999696	.999739	43



from 1 to 10000.

26.

Num	5	6	7	8	9	Diff.
974	2.988782	2.988826	2.988871	2.988915	2.988960	45
975	.989227	.989272	.989316	.989361	.989405	45
976	.989672	.989717	.989761	.989806	.989850	44
977	.990117	.990161	.990206	.990250	.990294	4
978	.990561	.990605	.990650	.990694	.990738	44
979	2.991004	2.991049	2.991093	2.991137	2.991182	44
980	.991448	.991492	.991536	.991580	.991625	44
981	.991890	.991934	.991979	.992023	.992067	44
982	.992333	.992377	.992421	.992465	.992509	44
983	.992774	.992818	.992863	.992907	.992951	44
984	2.993216	2.993260	2.993304	2.993348	2.993392	44
985	.993657	.993701	.993745	.993789	.993833	44
986	.994097	.994141	.994185	.994229	.994273	44
987	.994537	.994581	.994625	.994669	.994713	44
988	.994977	.995021	.995064	.995108	.995152	44
989	2.995416	2.995460	2.995504	2.995547	2.995591	44
990	.995854	.995898	.995942	.995986	.996030	44
991	.996293	.996336	.996380	.996424	.996468	44
992	.996730	.996774	.996818	.996862	.996905	44
993	.997168	.997212	.997255	.997299	.997343	44
994	2.997605	2.997648	2.997692	2.997736	2.997779	44
995	.998041	.998085	.998128	.998172	.998216	44
996	.998477	.998521	.998564	.998608	.998652	44
997	.998913	.998956	.999000	.999043	.999087	44
998	.999348	.999392	.999435	.999478	.999522	44
999	.999783	.999826	.999870	.999913	.999957	43

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## ADVERTISEMENT.

**A**LL Sorts of Meridian, Azimuths, and Amplitude Compasses, Running-glasses, Waggoners, Plats, Sea Charts, both Plain and *Mercator*: Likewise all sorts of Mathematical Instruments are made and sold by Wholesale or Retail, by *Jer. Seller* and *Cha. Price* at the *Hermitage-stairs*.

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A  
TRIANGULAR CANON  
Logarithmical :  
O R A  
TABLE  
O F

Artificial SINES, TANGENTS  
and SECANTS, the Radius  
10.000000 ; and to every  
Degree and Minute of the  
QUADRANT.

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L O N D O N,

Printed by *W. Redmayne* for *Jer. Seller*  
and *Cha. Price*, 1701.

# A Table of Artificial Sines,

o Degrees.

Min.	Sine.		Tang.		Secant.		
0	0.000000	10.000000	0.000000	Infinite.	10.000000	Infinite.	60
1	6.463726	9.999999	6.463726	13.536274	10.000000	13.536274	59
2	6.764756	9.999999	6.764756	13.235244	10.000000	13.235244	58
3	6.940847	9.999999	6.940847	13.059152	10.000000	13.059153	57
4	7.065786	9.999999	7.065786	12.934214	10.000000	12.934214	56
5	7.162696	9.999999	7.162696	12.837304	10.000000	12.837304	55
6	7.241877	9.999999	7.241878	12.758122	10.000001	12.758123	54
7	7.308824	9.999999	7.308825	12.691175	10.000001	12.691176	53
8	7.366816	9.999999	7.366817	12.633183	10.000001	12.633184	52
9	7.417968	9.999998	7.417970	12.582030	10.000001	12.582032	51
10	7.463725	9.999998	7.463727	12.536273	10.000002	12.536274	50
11	7.505118	9.999998	7.505120	12.494880	10.000002	12.494882	49
12	7.542906	9.999997	7.542909	12.457091	10.000003	12.457093	48
13	7.577668	9.999997	7.577671	12.422328	10.000003	12.422332	47
14	7.609853	9.999996	7.609857	12.390143	10.000004	12.390147	46
15	7.639816	9.999996	7.639820	12.360180	10.000004	12.360184	45
16	7.667844	9.999995	7.667849	12.332151	10.000005	12.332155	44
17	7.694173	9.999995	7.694179	12.305821	10.000005	12.305827	43
18	7.718997	9.999994	7.719003	12.280997	10.000006	12.281003	42
19	7.742477	9.999993	7.742484	12.257516	10.000007	12.257522	41
20	7.764754	9.999993	7.764761	12.235239	10.000007	12.235246	40
21	7.785943	9.999992	7.785951	12.214049	10.000008	12.214057	39
22	7.806146	9.999991	7.806155	12.193845	10.000009	12.193854	38
23	7.825451	9.999990	7.825460	12.174540	10.000010	12.174549	37
24	7.843934	9.999989	7.843944	12.156056	10.000011	12.156066	36
25	7.861662	9.999988	7.861674	12.138326	10.000011	12.138338	35
26	7.878695	9.999988	7.878708	12.121292	10.000012	12.121305	34
27	7.895085	9.999987	7.895099	12.104901	10.000013	12.104915	33
28	7.910879	9.999986	7.910894	12.089106	10.000014	12.089121	32
29	7.926119	9.999984	7.926134	12.073866	10.000015	12.073881	31
30	7.940842	9.999983	7.940858	12.059162	10.000016	12.059158	30
	Sine.		Tang.		Secant.		Min.

89 Degrees.



## Tangents and Secants.

o Degree.

Min.	Sine.		Tang.		Secant.		
30	7.940842	9.999983	7.940858	12.059142	10.000016	12.059158	30
31	7.955082	9.999982	7.955100	12.044900	10.000018	12.044918	29
32	7.968870	9.999981	7.968889	12.031111	10.000019	12.031130	28
33	7.982233	9.999980	7.982253	12.017747	10.000020	12.017767	27
34	7.995198	9.999979	7.995219	12.004781	10.000021	12.004802	26
35	8.007787	9.999977	8.007809	11.992191	10.000022	11.992213	25
36	8.020021	9.999976	8.020044	11.979955	10.000024	11.979979	24
37	8.031919	9.999975	8.031945	11.968055	10.000025	11.968080	23
38	8.043501	9.999973	8.043527	11.956473	10.000026	11.956499	22
39	8.054781	9.999972	8.054809	11.945191	10.000028	11.945219	21
40	8.065776	9.999971	8.065806	11.934194	10.000029	11.934224	20
41	8.076500	9.999969	8.076531	11.923469	10.000031	11.923500	19
42	8.086965	9.999968	8.086997	11.913003	10.000032	11.913035	18
43	8.097183	9.999966	8.097217	11.902783	10.000034	11.902817	17
44	8.107167	9.999964	8.107202	11.892797	10.000036	11.892833	16
45	8.116926	9.999963	8.116963	11.883037	10.000037	11.883074	15
46	8.126471	9.999961	8.126510	11.873490	10.000039	11.873529	14
47	8.135810	9.999959	8.135851	11.864149	10.000041	11.864190	13
48	8.144953	9.999958	8.144996	11.855004	10.000042	11.855047	12
49	8.153907	9.999956	8.153952	11.846048	10.000044	11.846092	11
50	8.162681	9.999954	8.162727	11.837273	10.000046	11.837319	10
51	8.171280	9.999952	8.171328	11.828672	10.000048	11.828720	9
52	8.179713	9.999950	8.179763	11.820237	10.000050	11.820287	8
53	8.187985	9.999948	8.188036	11.811964	10.000052	11.812015	7
54	8.196102	9.999946	8.196156	11.803844	10.000054	11.803898	6
55	8.204070	9.999944	8.204126	11.795874	10.000056	11.795930	5
56	8.211895	9.999942	8.211953	11.788047	10.000058	11.788105	4
57	8.219581	9.999940	8.219641	11.780359	10.000060	11.780419	3
58	8.227133	9.999938	8.227195	11.772805	10.000062	11.772866	2
59	8.234557	9.999936	8.234621	11.765379	10.000064	11.765443	1
60	8.241855	9.999934	8.241921	11.758078	10.000066	11.758145	0
	Sine.		Tang.		Secant.		Min.

89 Degrees.

# A Table of Artificial Sines,

1 Degree.

Min.	Sine.		Tang.		Secant.		Min.
0	8.241855	9.999934	8.241921	11.758078	10.000066	11.758145	60
1	8.249033	9.999932	8.249101	11.758098	10.000068	11.758167	59
2	8.256094	9.999929	8.256165	11.743835	10.000071	11.743906	58
3	8.263042	9.999927	8.263115	11.736885	10.000073	11.736958	57
4	8.269881	9.999925	8.269956	11.730044	10.000075	11.730119	56
5	8.276614	9.999922	8.276691	11.723309	10.000078	11.723386	55
6	8.283243	9.999920	8.283323	11.716677	10.000080	11.716757	54
7	8.289773	9.999917	8.289856	11.710144	10.000082	11.710227	53
8	8.296207	9.999915	8.296292	11.703708	10.000085	11.703793	52
9	8.302546	9.999912	8.302633	11.697366	10.000087	11.697454	51
10	8.308794	9.999910	8.308884	11.691116	10.000090	11.691206	50
11	8.314954	9.999907	8.315046	11.684954	10.000093	11.685046	49
12	8.321027	9.999905	8.321122	11.678878	10.000095	11.678973	48
13	8.327016	9.999902	8.327114	11.672886	10.000098	11.672984	47
14	8.332924	9.999899	8.333025	11.666975	10.000101	11.667076	46
15	8.338753	9.999897	8.338856	11.661144	10.000103	11.661247	45
16	8.344504	9.999894	8.344612	11.655389	10.000106	11.655496	44
17	8.350180	9.999891	8.350289	11.649710	10.000109	11.649819	43
18	8.355783	9.999888	8.355895	11.644105	10.000112	11.644216	42
19	8.361315	9.999885	8.361430	11.638570	10.000115	11.638685	41
20	8.366777	9.999882	8.366894	11.633105	10.000118	11.633223	40
21	8.372171	9.999879	8.372291	11.627708	10.000121	11.627829	39
22	8.377499	9.999876	8.377622	11.622378	10.000124	11.622501	38
23	8.382762	9.999873	8.382889	11.617111	10.000127	11.617238	37
24	8.387962	9.999870	8.388092	11.611908	10.000130	11.612038	36
25	8.393101	9.999867	8.393234	11.606766	10.000133	11.606899	35
26	8.398179	9.999864	8.398315	11.601685	10.000136	11.601821	34
27	8.403199	9.999861	8.403338	11.596662	10.000139	11.596801	33
28	8.408161	9.999858	8.408304	11.591696	10.000142	11.591839	32
29	8.413068	9.999854	8.413213	11.586787	10.000146	11.586931	31
30	8.417919	9.999851	8.418068	11.581932	10.000149	11.582081	30
	Sine.		Tang.		Secant.		Min.

88 Degrees.

# Tangents and Secants,

29

1 Degree.

Min.	Sine.		Tang.		Secant.		Min.
30	8.417919	9.999851	8.418068	11.581932	10.000149	11.582081	30
31	8.422717	9.999848	8.422869	11.577131	10.000152	11.577283	29
32	8.427462	9.999844	8.427618	11.572382	10.000155	11.572538	28
33	8.432156	9.999841	8.432315	11.567685	10.000159	11.567844	27
34	8.436800	9.999838	8.436962	11.563038	10.000162	11.563200	26
35	8.441394	9.999834	8.441560	11.558440	10.000166	11.558606	25
36	8.445941	9.999831	8.446110	11.553890	10.000169	11.554059	24
37	8.450440	9.999827	8.450613	11.549387	10.000173	11.549560	23
38	8.454893	9.999823	8.455070	11.544930	10.000176	11.545107	22
39	8.459301	9.999820	8.459481	11.540519	10.000180	11.540699	21
40	8.463664	9.999816	8.463849	11.536151	10.000184	11.536335	20
41	8.467985	9.999812	8.468172	11.531827	10.000187	11.532015	19
42	8.472263	9.999809	8.472454	11.527546	10.000191	11.527737	18
43	8.476498	9.999805	8.476693	11.523307	10.000195	11.523502	17
44	8.480693	9.999801	8.480892	11.519108	10.000199	11.519307	16
45	8.484848	9.999797	8.485050	11.514949	10.000203	11.515152	15
46	8.488963	9.999793	8.489170	11.510830	10.000206	11.511037	14
47	8.493040	9.999790	8.493250	11.506750	20.000210	11.506960	13
48	8.497078	9.999786	8.497293	11.502707	10.000214	11.502922	12
49	8.501080	9.999782	8.501298	11.498702	10.000218	11.498920	11
50	8.505045	9.999778	8.505267	11.494733	10.000222	11.494955	10
51	8.508974	9.999774	8.509200	11.490800	10.000226	11.491026	9
52	8.512867	9.999769	8.513098	11.486902	10.000230	11.487133	8
53	8.516726	9.999765	8.516961	11.483039	10.000235	11.483274	7
54	8.520551	9.999761	8.520790	11.479210	10.000239	11.479449	6
55	8.524343	9.999757	8.524586	11.475414	10.000243	11.475657	5
56	8.528102	9.999753	8.528349	11.471651	10.000247	11.471898	4
57	8.531828	9.999748	8.532080	11.467920	10.000252	11.468172	3
58	8.535523	9.999744	8.535779	11.464221	10.000256	11.464477	2
59	8.539186	9.999740	8.539447	11.460553	10.000260	11.460814	1
60	8.542819	9.999735	8.543084	11.456916	10.000265	11.457181	0
	Sine.		Tang.		Secant.		

88 Degrees.

# A Table of Artificial Sines,

2 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
0	8.542819	9.999735	8.543084	11.456916	10.000265	11.457181	60
1	8.546422	9.999731	8.546691	11.453309	10.000269	11.453578	59
2	8.549995	9.999726	8.550268	11.449732	10.000273	11.450005	58
3	8.553539	9.999722	8.553817	11.446183	10.009278	11.446461	57
4	8.557054	9.999717	8.557336	11.442664	10.000283	11.442946	56
5	8.560540	9.999713	8.560828	11.439172	10.000287	11.439460	55
6	8.563999	9.999708	8.564291	11.435709	10.000292	11.436001	54
7	8.567431	9.999704	8.567727	11.432272	10.000296	11.432569	53
8	8.570836	9.999699	8.571137	11.428863	10.000301	11.429164	52
9	8.574214	9.999694	8.574520	11.425480	10.000306	11.425786	51
10	8.577566	9.999689	8.577877	11.422123	10.000311	11.422434	50
11	8.580892	9.999685	8.581208	11.418792	10.000315	11.419108	49
12	8.584193	9.999680	8.584514	11.415486	10.000320	11.415807	48
13	8.587469	9.999675	8.587794	11.412206	10.000325	11.412531	47
14	8.590721	9.999670	8.591051	11.408949	10.000330	11.409279	46
15	8.593948	9.999665	8.594283	11.405717	10.000335	11.406052	45
16	8.597152	9.999660	8.597492	11.402508	10.000340	11.402848	44
17	8.600332	9.999655	8.600677	11.399323	10.000345	11.399668	43
18	8.603489	9.999650	8.603839	11.396161	10.000350	11.396511	42
19	8.606623	9.999645	8.606978	11.393022	10.000355	11.393377	41
20	8.609734	9.999640	8.610094	11.389906	10.000360	11.390266	40
21	8.612823	9.999635	8.613189	11.386811	10.000365	11.387176	39
22	8.615891	9.999629	8.616262	11.383738	10.000371	11.384109	38
23	8.618937	9.999624	8.619313	11.380687	10.000376	11.381063	37
24	8.621962	9.999619	8.622343	11.377657	10.000381	11.378038	36
25	8.624965	9.999614	8.625352	11.374648	10.000386	11.375035	35
26	8.627948	9.999608	8.628340	11.371660	10.000392	11.372052	34
27	8.630911	9.999603	8.631308	11.368692	10.000397	11.369089	33
28	8.633854	9.999597	8.634256	11.365744	10.000403	11.366146	32
29	8.636776	9.999592	8.637184	11.362815	10.000408	11.363224	31
30	8.639680	9.999586	8.640093	11.359906	10.000413	11.360320	30
	Sine.		Tang.		Secant.		Min.

87 Degrees.



# Tangents and Secants.

30

2 Degrees.

Min.	Sine.		Tang.		Secant.		
30	8.639680	9.999586	8.640093	11.359907	10.000413	11.360320	30
31	8.642563	9.999581	8.642982	11.357017	10.000419	11.357437	29
32	8.645428	9.999575	8.645853	11.354147	10.000425	11.354572	28
33	8.648274	9.999570	8.648704	11.351296	10.000430	11.351726	27
34	8.651102	9.999564	8.651537	11.348462	10.000436	11.348898	26
35	8.653911	9.999558	8.654352	11.345648	10.000442	11.346089	25
36	8.656702	9.999553	8.657149	11.342851	10.000447	11.343298	24
37	8.659475	9.999547	8.659928	11.340072	10.000453	11.340525	23
38	8.662230	9.999541	8.662689	11.337311	10.000459	11.337770	22
39	8.664968	9.999535	8.665433	11.334567	10.000465	11.335032	21
40	8.667689	9.999529	8.668160	11.331840	10.000470	11.332311	20
41	8.670393	9.999524	8.670870	11.329130	10.000476	11.329607	19
42	8.673080	9.999518	8.673563	11.326437	10.000482	11.326920	18
43	8.675751	9.999512	8.676239	11.323761	10.000488	11.324249	17
44	8.678405	9.999506	8.678900	11.321100	10.000494	11.321595	16
45	8.681043	9.999500	8.681544	11.318456	10.000500	11.318957	15
46	8.683665	9.999493	8.684172	11.315828	10.000506	11.316335	14
47	8.686272	9.999487	8.686784	11.313216	10.000513	11.313727	13
48	8.688863	9.999481	8.689381	11.310619	10.000519	11.311135	12
49	8.691438	9.999475	8.691693	11.308037	10.000525	11.308562	11
50	8.693998	9.999469	8.694529	11.305471	10.000531	11.306002	10
51	8.696543	9.999462	8.697081	11.302919	10.000537	11.303457	9
52	8.699073	9.999456	8.699617	11.300383	10.000544	11.300927	8
53	8.701589	9.999450	8.702139	11.297861	10.000550	11.298411	7
54	8.704090	9.999443	8.704646	11.295353	10.000556	11.295910	6
55	8.706577	9.999437	8.707139	11.292860	10.000563	11.293423	5
56	8.709049	9.999431	8.709618	11.290381	10.000569	11.290951	4
57	8.711507	9.999424	8.712083	11.287917	10.000576	11.288492	3
58	8.713952	9.999418	8.714534	11.285465	10.000582	11.286048	2
59	8.716383	9.999411	8.716972	11.283028	10.000589	11.283617	1
60	8.718800	9.999404	8.719396	11.280604	10.000596	11.281200	0
	Sine.		Tang.		Secant.		Min.

87 Degrees.

# A Table of Artificial Sines,

3 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
0	8.718800	9.999404	8.719396	11.280604	10.000596	11.281200	60
1	8.721204	9.999398	8.721806	11.278194	10.000602	11.278796	59
2	8.723595	9.999391	8.724203	11.275796	10.000609	11.276405	58
3	8.725972	9.999384	8.726588	11.273412	10.000616	11.274028	57
4	8.728337	9.999378	8.728959	11.271041	10.000622	11.271663	56
5	8.730688	9.999371	8.731317	11.268683	10.000629	11.269312	55
6	8.733027	9.999364	8.733663	11.266337	10.000636	11.266973	54
7	8.735353	9.999357	8.735996	11.264004	10.000643	11.264646	53
8	8.737667	9.999350	8.738317	11.261683	10.000650	11.262332	52
9	8.739969	9.999343	8.740626	11.259374	10.000657	11.260031	51
10	8.742259	9.999336	8.742922	11.257078	10.000664	11.257741	50
11	8.744536	9.999329	8.745207	11.254793	10.000671	11.255464	49
12	8.746801	9.999322	8.747479	11.252521	10.000678	11.253198	48
13	8.749055	9.999315	8.749740	11.250260	10.000685	11.250945	47
14	8.751297	9.999308	8.751989	11.248011	10.000692	11.248703	46
15	8.753528	9.999301	8.754227	11.245773	10.000699	11.246472	45
16	8.755747	9.999294	8.756453	11.243547	10.000706	11.244253	44
17	8.757955	9.999286	8.758668	11.241332	10.000713	11.242045	43
18	8.760151	9.999279	8.760872	11.239128	10.000721	11.239849	42
19	8.762337	9.999272	8.763065	11.236935	10.000728	11.237663	41
20	8.764511	9.999265	8.765246	11.234753	10.000735	11.235489	40
21	8.766675	9.999257	8.767417	11.232582	10.000743	11.233325	39
22	8.768827	9.999250	8.769578	11.230422	10.000750	11.231172	38
23	8.770970	9.999242	8.771727	11.228273	10.000758	11.229030	37
24	8.773101	9.999235	8.773866	11.226133	10.000765	11.226899	36
25	8.775223	9.999227	8.775993	11.224005	10.000773	11.224777	35
26	8.777333	9.999220	8.778114	11.221886	10.000780	11.222667	34
27	8.779434	9.999212	8.780222	11.219778	10.000788	11.220566	33
28	8.781524	9.999205	8.782320	11.217680	10.000795	11.218476	32
29	8.783605	9.999197	8.784408	11.215592	10.000803	11.216395	31
30	8.785675	9.999189	8.786486	11.213514	10.000811	11.214325	30
	Sine.		Tang.		Secant.		Min.

86 Degrees.

## Tangents and Secants.

3 Degrees.

Min.	Sine.	Tang.	Secant.	
30	8.7856759.999189	8.786486	11.213514	10.000811 11.214325 30
31	8.7877369.999181	8.788554	11.211446	10.000818 11.212264 29
32	8.7897879.999174	8.790613	11.209387	10.000826 11.210213 28
33	8.7918289.999166	8.792662	11.207338	10.000834 11.208172 27
34	8.7938599.999158	8.794701	11.205299	10.000842 11.206141 26
35	8.7958819.999150	8.796732	11.203269	10.000850 11.204119 25
36	8.7978949.999142	8.798752	11.201248	10.000858 11.202106 24
37	8.7998979.999134	8.800763	11.199237	10.000866 11.200103 23
38	8.8018919.999126	8.802765	11.197235	10.000874 11.198108 22
39	8.8038769.999118	8.804758	11.195242	10.000882 11.196124 21
40	8.8058529.999110	8.806742	11.193258	10.000890 11.194148 20
41	8.8078199.999102	8.808717	11.191283	10.000898 11.192181 19
42	8.8097779.999094	8.810683	11.189317	10.000906 11.190223 18
43	8.8117269.999086	8.812641	11.187359	10.000914 11.188274 17
44	8.8136679.999077	8.814589	11.185411	10.000923 11.186333 16
45	8.8155989.999069	8.816529	11.183471	10.000931 11.184401 15
46	8.8175229.999061	8.818461	11.181539	10.000939 11.182478 14
47	8.8194369.999052	8.820384	11.179616	10.000947 11.180564 13
48	8.8213429.999044	8.822298	11.177702	10.000956 11.178657 12
49	8.8232409.999036	8.824205	11.175795	10.000964 11.176760 11
50	8.8251309.999027	8.826103	11.173897	10.000973 11.174870 10
51	8.8270119.999019	8.827992	11.172008	10.000981 11.172989 9
52	8.8288849.999010	8.829874	11.170126	10.000990 11.171116 8
53	8.8307499.999002	8.831748	11.168252	10.000998 11.169250 7
54	8.8326079.998993	8.833613	11.166387	10.001007 11.167393 6
55	8.8344569.998984	8.835471	11.164529	10.001015 11.165544 5
56	8.8362979.998976	8.837321	11.162679	10.001024 11.163703 4
57	8.8381309.998967	8.839163	11.160837	10.001033 11.161870 3
58	8.8399569.998958	8.840998	11.159002	10.001042 11.160044 2
59	8.8417749.998950	8.842824	11.157175	10.001050 11.158226 1
60	8.8435849.998941	8.844644	11.155356	10.001059 11.156415 0
	Sine.	Tang.	Secant.	Min.

86 Degrees.

# A Table of Artificial Sines,

4 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
0	8.843584	9.998941	8.844644	11.155356	10.001059	11.156415	60
1	8.845387	9.998932	8.846455	11.153545	10.001068	11.154613	59
2	8.847183	9.998923	8.848260	11.151740	10.001077	11.152817	58
3	8.848971	9.998914	8.850056	11.149943	10.001086	11.151029	57
4	8.850751	9.998905	8.851846	11.148154	10.001095	11.149249	56
5	8.852524	9.998896	8.853628	11.146372	10.001104	11.147475	55
6	8.854290	9.998887	8.855403	11.144597	10.001113	11.145709	54
7	8.856049	9.998878	8.857171	11.142829	10.001122	11.143951	53
8	8.857801	9.998869	8.858932	11.141068	10.001131	11.142199	52
9	8.859946	9.998860	8.860686	11.139314	10.001140	11.140554	51
10	8.861283	9.998851	8.862433	11.137567	10.001149	11.138717	50
11	8.863014	9.998841	8.864172	11.135827	10.001159	11.136986	49
12	8.864738	9.998832	8.865905	11.134094	10.001168	11.135262	48
13	8.866454	9.998823	8.867632	11.132368	10.001177	11.133545	47
14	8.868165	9.998813	8.869351	11.130649	10.001186	11.131835	46
15	8.869868	9.998804	8.871064	11.128936	10.001196	11.130132	45
16	8.871565	9.998795	8.872770	11.127230	10.001205	11.128435	44
17	8.873255	9.998785	8.874469	11.125531	10.001215	11.126745	43
18	8.874938	9.998776	8.876162	11.123838	10.001224	11.125062	42
19	8.876615	9.998766	8.877849	11.122151	10.001234	11.123385	41
20	8.878285	9.998757	8.879529	11.120471	10.001243	11.121715	40
21	8.879949	9.998747	8.881202	11.118798	10.001253	11.120051	39
22	8.881607	9.998737	8.882869	11.117131	10.001262	11.118393	38
23	8.883258	9.998728	8.884530	11.115470	10.001272	11.116742	37
24	8.884903	9.998718	8.886185	11.113815	10.001282	11.115097	36
25	8.886542	9.998708	8.887833	11.112167	10.001292	11.113458	35
26	8.888174	9.998699	8.889476	11.110524	10.001301	11.111826	34
27	8.889801	9.998689	8.891112	11.108888	10.001311	11.110192	33
28	8.891421	9.998679	8.892742	11.107258	10.001321	11.108579	32
29	8.893035	9.998669	8.894366	11.105634	10.001331	11.106965	31
30	8.894643	9.998659	8.895984	11.104016	10.001341	11.105357	30
	Sine.		Tang.		Secant.		Min.

85 Degrees.



Tangents and Secants.

4 Degrees.

Min.	Sine.		Tang.		Secant.	
30	8.894643	9.998659	8.895984	11.104016	10.001341	11.105357
31	8.896245	9.998649	8.897596	11.102404	10.001351	11.103754
32	8.897842	9.998639	8.899203	11.100797	10.001361	11.102158
33	8.899432	9.998629	8.900803	11.099197	10.001371	11.100568
34	8.901017	9.998619	8.902398	11.097602	10.001381	11.098983
35	8.902595	9.998609	8.903987	11.096013	10.001391	11.097404
36	8.904168	9.998599	8.905570	11.094430	10.001401	11.095831
37	8.905736	9.998589	8.907147	11.092853	10.001411	11.094264
38	8.907297	9.998578	8.908719	11.091281	10.001422	11.092702
39	8.908853	9.998568	8.910285	11.089715	10.001432	11.091146
40	8.910404	9.998558	8.911846	11.088154	10.001442	11.089596
41	8.911949	9.998547	8.913401	11.086599	10.001452	11.088051
42	8.913488	9.998537	8.914951	11.085049	10.001463	11.086512
43	8.915022	9.998527	8.916495	11.083505	10.001473	11.084978
44	8.916550	9.998516	8.918034	11.081966	10.001484	11.083450
45	8.918073	9.998506	8.919567	11.080432	10.001494	11.081927
46	8.919591	9.998495	8.921096	11.078904	10.001505	11.080409
47	8.921103	9.998485	8.922619	11.077381	10.001515	11.078897
48	8.922610	9.998474	8.924136	11.075864	10.001526	11.077389
49	8.924112	9.998464	8.925649	11.074351	10.001536	11.075888
50	8.925609	9.998453	8.927156	11.072854	10.001547	11.074391
51	8.927100	9.998442	8.928658	11.071342	10.001558	11.072900
52	8.928587	9.998431	8.930155	11.069845	10.001568	11.071413
53	8.930068	9.998421	8.931647	11.068353	10.001579	11.069932
54	8.931544	9.998410	8.933134	11.066866	10.001590	11.068456
55	8.933015	9.998399	8.934616	11.065384	10.001601	11.066985
56	8.934481	9.998388	8.936093	11.063907	10.001612	11.065519
57	8.935942	9.998377	8.937565	11.062435	10.001623	11.064058
58	8.937398	9.998366	8.939032	11.060968	10.001634	11.062602
59	8.938850	9.998355	8.940494	11.059506	10.001645	11.061150
60	8.940296	9.998344	8.941952	11.058048	10.001656	11.059704
		Sine.		Tang.		Secant.

85 Degrees.

Min.

# A Table of Artificial Sines,

5 Degrees.

Min.	Sine.		Tang.		Secant.		
0	8.940296	9.998344	8.941952	11.058048	10.001656	11.059704	60
1	8.941738	9.998333	8.943404	11.056596	10.001667	11.058262	59
2	8.943174	9.998322	8.944852	11.055148	10.001678	11.056826	58
3	8.944606	9.998311	8.946295	11.053705	10.001689	11.055394	57
4	8.946033	9.998300	8.947734	11.052266	10.001700	11.053966	56
5	8.947456	9.998288	8.949168	11.050832	10.001711	11.052544	55
6	8.948874	9.998277	8.950597	11.049403	10.001723	11.051126	54
7	8.950287	9.998266	8.952021	11.047979	10.001734	11.049713	53
8	8.951696	9.998255	8.953441	11.046559	10.001745	11.048304	52
9	8.953100	9.998243	8.954856	11.045144	10.001757	11.046900	51
10	8.954499	9.998232	8.956267	11.043733	10.001768	11.045501	50
11	8.955896	9.998220	8.957673	11.042326	10.001780	11.044106	49
12	8.957284	9.998209	8.959075	11.040925	10.001791	11.042716	48
13	8.958670	9.998197	8.960473	11.039527	10.001803	11.041330	67
14	8.960052	9.998186	8.961885	11.038134	10.001814	11.039948	46
15	8.961429	9.998174	8.963254	11.036745	10.001826	11.038571	45
16	8.962801	9.998163	8.964639	11.035361	10.001837	11.037199	44
17	8.964170	9.998151	8.966019	11.033981	10.001849	11.035830	43
18	8.965534	9.998139	8.967394	11.032606	10.001861	11.034466	42
19	8.966893	9.998127	8.968766	11.031234	10.001872	11.033107	41
20	8.968249	9.998116	8.970133	11.029867	10.001884	11.031751	40
21	8.969600	9.998104	8.971496	11.028504	10.001896	11.030400	39
22	8.970947	9.998092	8.972855	11.027145	10.001908	11.029053	38
23	8.972289	9.998080	8.974209	11.025791	10.001920	11.027710	37
24	8.973628	9.998068	8.975560	11.024440	10.001932	11.026372	36
25	8.974962	9.998056	8.976906	11.023094	10.001944	11.025038	35
26	8.976293	9.998044	8.978248	11.021751	10.001956	11.023707	34
27	8.977619	9.998032	8.979586	11.020413	10.001968	11.022381	33
28	8.978941	9.998020	8.980921	11.019079	10.001980	11.021059	32
29	8.980259	9.998008	8.982251	11.017749	10.001992	11.019741	31
30	8.981573	9.997996	8.983577	11.016423	10.002004	11.018427	30
	Sine.		Tang.		Secant.		Min.

84 Degrees.

# Tangents and Secants.

5 Degrees.

Min.	Sine.		Tang.		Secant.	
30	8.981573	9.997996	8.983577	11.016423	10.002064	11.018427
31	8.982883	9.997984	8.984899	11.015101	10.002016	11.017117
32	8.984189	9.997972	8.986217	11.013783	10.002028	11.015811
33	8.985491	9.997959	8.987532	11.012468	10.002041	11.014509
34	8.986789	9.997947	8.988842	11.011158	10.002053	11.013211
35	8.988083	9.997935	8.990149	11.009851	10.002065	11.011917
36	8.989374	9.997922	8.991451	11.008549	10.002078	11.010626
37	8.990660	9.997910	8.992750	11.007250	10.002090	11.009340
38	8.991943	9.997897	8.994045	11.005955	10.002102	11.008057
39	8.993222	9.997885	8.995337	11.004663	10.002125	11.006778
40	8.994497	9.997872	8.996624	11.003376	10.002127	11.005503
41	8.995768	9.997859	8.997908	11.002092	10.002141	11.004232
42	8.997036	9.997847	8.999188	11.000812	10.002153	11.002964
43	8.998299	9.997835	9.000465	10.999535	10.002165	11.001701
44	8.999559	9.997822	9.001737	10.998262	10.002178	11.000440
45	9.000816	9.997809	9.003007	10.996993	10.002191	10.999184
46	9.002069	9.997797	9.004272	10.995728	10.002203	10.997931
47	9.003318	9.997784	9.005534	10.994466	10.002216	10.996682
48	9.004563	9.997771	9.006792	10.993208	10.002225	10.995437
49	9.005805	9.997758	9.008047	10.991953	10.002242	10.994195
50	9.007044	9.997745	9.009298	10.990702	10.002255	10.992956
51	9.008278	9.997732	9.010546	10.989454	10.002268	10.991722
52	9.009510	9.997719	9.011790	10.988210	10.002281	10.990490
53	9.010737	9.997706	9.013031	10.986969	10.002294	10.989263
54	9.011962	9.997693	9.014268	10.985732	10.002307	10.988038
55	9.013182	9.997680	9.015502	10.984498	10.002320	10.986818
56	9.014400	9.997667	9.016732	10.983267	10.002333	10.985600
57	9.015613	9.997654	9.017959	10.982041	10.002346	10.984386
58	9.016824	9.997641	9.019183	10.980817	10.002359	10.983176
59	9.018031	9.997628	9.020400	10.979597	10.002372	10.981969
60	9.019230	9.997614	9.021620	10.978380	10.002386	10.980765
	Sine.		Tang.		Secant.	

84 Degrees.

Min.

# A Table of Artificial Sines,

6 Degrees.

Min.	Sine.		Tang.		Secant.	
0	9.019235	9.997614	9.021620	10.978380	10.002386	10.980765
1	9.020435	9.997601	9.022834	10.977166	10.002399	10.979565
2	9.021632	9.997588	9.024044	10.975956	10.002412	10.978368
3	9.022825	9.997574	9.025251	10.974749	10.002426	10.977175
4	9.024016	9.997561	9.026455	10.973545	10.002439	10.975984
5	9.025203	9.997547	9.027655	10.972345	10.002452	10.974797
6	9.026386	9.997534	9.028852	10.971148	10.002466	10.973613
7	9.027567	9.997520	9.030046	10.969954	10.002479	10.972433
8	9.028744	9.997507	9.031237	10.968763	10.002493	10.971256
9	9.029918	9.997493	9.032425	10.967575	10.002507	10.970082
10	9.031089	9.997480	9.033609	10.966391	10.002520	10.968911
11	9.032257	9.997466	9.034791	10.965209	10.002534	10.967743
12	9.033421	9.997452	9.035969	10.964031	10.002548	10.966579
13	9.034582	9.997439	9.037144	10.962856	10.002561	10.965417
14	9.035741	9.997425	9.038316	10.961684	10.002575	10.964259
15	9.036896	9.997411	9.039485	10.960515	10.002589	10.963104
16	9.038048	9.997397	9.040651	10.959349	10.002603	10.961952
17	9.039197	9.997383	9.041813	10.958187	10.002617	10.960803
18	9.040342	9.997369	9.042973	10.957027	10.002631	10.959658
19	9.041485	9.997355	9.044130	10.955870	10.002645	10.958515
20	9.042625	9.997341	9.045284	10.954716	10.002659	10.957375
21	9.043762	9.997327	9.046434	10.953566	10.002673	10.956238
22	9.044895	9.997313	9.047582	10.952418	10.002687	10.955105
23	9.046026	9.997299	9.048727	10.951273	10.002701	10.953974
24	9.047154	9.997285	9.049869	10.950131	10.002715	10.952846
25	9.048279	9.997271	9.051008	10.948992	10.002729	10.951721
26	9.049400	9.997257	9.052144	10.947856	10.002743	10.950599
27	9.050519	9.997242	9.053277	10.946723	10.002758	10.949481
28	9.051635	9.997228	9.054407	10.945593	10.002772	10.948365
29	9.052748	9.997214	9.055535	10.944465	10.002786	10.947251
30	9.053859	9.997199	9.056659	10.943340	10.002801	10.946141
		Sine.		Tang.		Secant.

83 Degrees.

Min.



# Tangents and Secants.

6 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.053859	9.997199	9.056659	10.943340	10.002801	10.946141	30
31	9.054966	9.997185	9.057781	10.942219	10.002815	10.945034	29
32	9.056071	9.997170	9.058900	10.941100	10.002830	10.943929	28
33	9.057172	9.997156	9.060016	10.939984	10.002844	10.942838	27
34	9.058271	9.997141	9.061130	10.938870	10.002859	10.941729	26
35	9.059367	9.997127	9.062240	10.937760	10.002873	10.940633	25
36	9.060460	9.997112	9.063348	10.936652	10.002888	10.939540	24
37	9.061551	9.997098	9.064453	10.935547	10.002902	10.938449	23
38	9.062639	9.997083	9.065556	10.934444	10.002917	10.937361	22
39	9.063723	9.997068	9.066655	10.933345	10.002932	10.936276	21
40	9.064806	9.997053	9.067752	10.932248	10.002946	10.935194	20
41	9.065885	9.997039	9.068846	10.931153	10.002961	10.934115	19
42	9.066962	9.997024	9.069938	10.930062	10.002976	10.933038	18
43	9.068036	9.997009	9.071027	10.928973	10.002991	10.931964	17
44	9.069107	9.996994	9.072113	10.927887	10.003006	10.930893	16
45	9.070176	9.996979	9.073197	10.926803	10.003021	10.929824	15
46	9.071242	9.996964	9.074278	10.925722	10.003036	10.928758	14
47	9.072305	9.996949	9.075356	10.924644	10.003051	10.927694	13
48	9.073366	9.996934	9.076432	10.923568	10.003066	10.926634	12
49	9.074424	9.996919	9.077505	10.922450	10.003081	10.925576	11
50	9.075480	9.996904	9.078576	10.921424	10.003096	10.924520	10
51	9.076533	9.996889	9.079644	10.920356	10.003111	10.923467	9
52	9.077583	9.996874	9.080710	10.919290	10.003126	10.922417	8
53	9.078631	9.996858	9.081773	10.918227	10.003142	10.921369	7
54	9.079676	9.996843	9.082834	10.917167	10.003157	10.920324	6
55	9.080719	9.996828	9.083891	10.916109	10.003172	10.919281	5
56	9.081759	9.996812	9.084947	10.915053	10.003187	10.918241	4
57	9.082797	9.996797	9.086000	10.914000	10.003203	10.917203	3
58	9.083832	9.996782	9.087050	10.912950	10.003218	10.916168	2
59	9.084864	9.996766	9.088098	10.911902	10.003234	10.915136	1
60	9.085894	9.996751	9.089144	10.910856	10.003249	10.914105	0
	Sine.		Tang.		Secant.		Min.

83 Degrees.

K

# A Table of Artificial Sines.

77 Degrees.

Min.	Sine.		Tang.		Secant.	
0	9.085894	9.996751	9.089144	10.910856	10.003249	10.914105 60
1	9.086922	9.996735	9.090187	10.909813	10.003265	10.913078 59
2	9.087947	9.996720	9.091228	10.908772	10.003280	10.912053 58
3	9.088970	9.996704	9.092266	10.907734	10.003296	10.911030 57
4	9.089990	9.996688	9.093302	10.906698	10.003312	10.910010 56
5	9.091008	9.996673	9.094335	10.905664	10.003327	10.908992 55
6	9.092024	9.996657	9.095367	10.904633	10.003343	10.907976 54
7	9.093037	9.996641	9.096396	10.903604	10.003359	10.906963 53
8	9.094047	9.996625	9.097402	10.902578	10.003375	10.905953 52
9	9.095056	9.996610	9.098446	10.901554	10.003390	10.904944 51
10	9.096061	9.996594	9.099468	10.900532	10.003406	10.903938 50
11	9.097065	9.996578	9.100487	10.899513	10.003422	10.902935 49
12	9.098066	9.996562	9.101504	10.898496	10.003438	10.901934 48
13	9.099065	9.996546	9.102519	10.897481	10.003454	10.900935 47
14	9.100062	9.996530	9.103532	10.896468	10.003470	10.899938 46
15	9.101056	9.996514	9.104542	10.895458	10.003486	10.898944 45
16	9.102048	9.996498	9.105550	10.894450	10.003502	10.897952 44
17	9.103037	9.996482	9.106556	10.893444	10.003518	10.896963 43
18	9.104025	9.996465	9.107559	10.892441	10.003534	10.895975 42
19	9.105010	9.996449	9.108560	10.891440	10.003551	10.894990 41
20	9.105992	9.996433	9.109559	10.890441	10.003567	10.894008 40
21	9.106973	9.996417	9.110556	10.889444	10.003583	10.893027 39
22	9.107951	9.996400	9.111551	10.888449	10.003600	10.892049 38
23	9.108927	9.996384	9.112543	10.887457	10.003616	10.891073 37
24	9.109901	9.996368	9.113533	10.886467	10.003632	10.890099 36
25	9.110873	9.996351	9.114521	10.885479	10.003649	10.889127 35
26	9.111842	9.996335	9.115507	10.884493	10.003665	10.888158 34
27	9.112809	9.996318	9.116491	10.883509	10.003682	10.887191 33
28	9.113774	9.996302	9.117472	10.882528	10.003698	10.886226 32
29	9.114737	9.996285	9.118452	10.881548	10.003715	10.885263 31
30	9.115698	9.996269	9.119429	10.880571	10.003731	10.884302 30
	Sine.		Tang.		Secant.	Min.

82 Degrees.

# Tangents and Secants.

351

7 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.115698	9.996269	9.119429	10.880571	10.003731	10.884302	30
31	9.116656	9.996252	9.120404	10.879596	10.003748	10.883344	29
32	9.117612	9.996235	9.121377	10.878623	10.003765	10.882387	28
33	9.118567	9.996218	9.122348	10.877652	10.003781	10.881433	27
34	9.119519	9.996202	9.123317	10.876683	10.003798	10.880481	26
35	9.120469	9.996185	9.124284	10.875716	10.003815	10.879531	25
36	9.121417	9.996168	9.125249	10.874757	10.003832	10.878583	24
37	9.122362	9.996151	9.126201	10.873789	10.003849	10.877638	23
38	9.123306	9.996134	9.127172	10.872828	10.003866	10.876694	22
39	9.124248	9.996117	9.128130	10.871870	10.003883	10.875752	21
40	9.125187	9.996100	9.129087	10.870913	10.003900	10.874813	20
41	9.126125	9.996083	9.130041	10.869959	10.003917	10.873875	19
42	9.127060	9.996066	9.130994	10.869006	10.003934	10.872949	18
43	9.127993	9.996049	9.131944	10.868056	10.003951	10.872007	17
44	9.128925	9.996032	9.132893	10.867107	10.003968	10.871075	16
45	9.129854	9.996015	9.133839	10.866161	10.003985	10.870146	15
46	9.130781	9.995998	9.134783	10.865216	10.004002	10.869219	14
47	9.131706	9.995980	9.135726	10.864274	10.004020	10.868294	13
48	9.132630	9.995963	9.136666	10.863333	10.004037	10.867370	12
49	9.133551	9.995946	9.137605	10.862395	10.004054	10.866449	11
50	9.134470	9.995928	9.138542	10.861458	10.004072	10.865530	10
51	9.135387	9.995911	9.139476	10.860524	10.004089	10.864612	9
52	9.136303	9.995894	9.140409	10.859591	10.004106	10.863697	8
53	9.137216	9.995876	9.141340	10.858660	10.004124	10.862784	7
54	9.138127	9.995859	9.142269	10.857731	10.004141	10.861872	6
55	9.139037	9.995841	9.143196	10.856804	10.004159	10.860963	5
56	9.139944	9.995823	9.144121	10.855879	10.004176	10.860055	4
57	9.140850	9.995806	9.145044	10.854956	10.004194	10.859150	3
58	9.141754	9.995788	9.145965	10.854034	10.004212	10.858246	2
59	9.142655	9.995770	9.146885	10.853115	10.004229	10.857344	1
60	9.143555	9.995753	9.147802	10.852197	10.004247	10.856445	0
	Sine.		Tang.			Secant.	

82 Degrees.

Min.

82 Degrees.

# A Table of Artificial Sines,

8 Degrees.

Min.	Sine.		Tang.		Secant.		
0	9.143555	9.995753	9.147802	10.852197	10.004247	10.856445	60
1	9.144453	9.995735	9.148718	10.851282	10.004265	10.855547	59
2	9.145349	9.995717	9.149632	10.850368	10.004283	10.854651	58
3	9.146243	9.995699	9.150544	10.849456	10.004301	10.853756	57
4	9.147136	9.995681	9.151454	10.848546	10.004318	10.852864	56
5	9.148026	9.995663	9.152363	10.847637	10.004336	10.851974	55
6	9.148915	9.995646	9.153269	10.846731	10.004354	10.851085	54
7	9.149801	9.995628	9.154174	10.845826	10.004372	10.850198	53
8	9.150686	9.995609	9.155077	10.844923	10.004390	10.849314	52
9	9.151569	9.995591	9.155978	10.844022	10.004408	10.848431	51
10	9.152451	9.995573	9.156887	10.843123	10.004427	10.847549	50
11	9.153330	9.995555	9.157775	10.842225	10.004445	10.846670	49
12	9.154208	9.995537	9.158671	10.841329	10.004463	10.845792	48
13	9.155083	9.995519	9.159565	10.840435	10.004481	10.844917	47
14	9.155957	9.995500	9.160457	10.839543	10.004499	10.844043	46
15	9.156830	9.995482	9.161347	10.838653	10.004518	10.843170	45
16	9.157700	9.995464	9.162236	10.837764	10.004536	10.842300	44
17	9.158569	9.995445	9.163123	10.836877	10.004554	10.841431	43
18	9.159435	9.995427	9.164008	10.835992	10.004573	10.840565	42
19	9.160300	9.995409	9.164892	10.835108	10.004591	10.839699	41
20	9.161164	9.995390	9.165774	10.834226	10.004610	10.838836	40
21	9.162025	9.995372	9.166654	10.833346	10.004628	10.837974	39
22	9.162885	9.995353	9.167532	10.832468	10.004647	10.837115	38
23	9.163743	9.995334	9.168409	10.831591	10.004665	10.836257	37
24	9.164600	9.995316	9.169284	10.830716	10.004684	10.835400	36
25	9.165454	9.995297	9.170157	10.829843	10.004703	10.834546	35
26	9.166307	9.995278	9.171029	10.828971	10.004721	10.833693	34
27	9.167159	9.995260	9.171899	10.828101	10.004740	10.832841	33
28	9.168008	9.995241	9.172767	10.827233	10.004759	10.831992	32
29	9.168856	9.995222	9.173634	10.826366	10.004778	10.831144	31
30	9.169702	9.995203	9.174499	10.825501	10.004797	10.830298	30
	Sine.		Tang.		Secant.		Min.

81 Degrees.



# Tangents and Secants.

8 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.169702	9.995203	9.174499	10.825501	10.004797	10.830298	30
31	9.170546	9.995184	9.175362	10.824638	10.004816	10.829453	29
32	9.171389	9.995165	9.176224	10.823776	10.004835	10.828611	28
33	9.172230	9.995146	9.177084	10.822916	10.004854	10.827769	27
34	9.173070	9.995127	9.177942	10.822057	10.004873	10.826930	26
35	9.173908	9.995108	9.178799	10.821201	10.004892	10.826092	25
36	9.174744	9.995089	9.179655	10.820345	10.004911	10.825256	24
37	9.175578	9.995070	9.180508	10.819492	10.004930	10.824422	23
38	9.176411	9.995051	9.181360	10.818640	10.004949	10.823589	22
39	9.177242	9.995032	9.182211	10.817789	10.004968	10.822757	21
40	9.178072	9.995013	9.183059	10.816940	10.004987	10.821928	20
41	9.178900	9.994993	9.183907	10.816093	10.005007	10.821108	19
42	9.179726	9.994974	9.184752	10.815247	10.005026	10.820273	18
43	9.180551	9.994955	9.185597	10.814403	10.005045	10.819489	17
44	9.181374	9.994935	9.186439	10.813561	10.005065	10.818626	16
45	9.182196	9.994916	9.187280	10.812720	10.005084	10.817804	15
46	9.183016	9.994896	9.188120	10.811880	10.005104	10.816984	14
47	9.183834	9.994877	9.188957	10.811042	10.005123	10.816166	13
48	9.184651	9.994857	9.189794	10.810206	10.005143	10.815349	12
49	9.185466	9.994838	9.190629	10.809371	10.005162	10.814533	11
50	9.186280	9.994818	9.191462	10.808538	10.005182	10.813720	10
51	9.187092	9.994798	9.192294	10.807706	10.005201	10.812908	9
52	9.187903	9.994779	9.193124	10.806876	10.005221	10.812097	8
53	9.188712	9.994759	9.193953	10.806047	10.005241	10.811288	7
54	9.189519	9.994739	9.194780	10.805220	10.005261	10.810480	6
55	9.190325	9.994729	9.195606	10.804394	10.005280	10.809675	5
56	9.191130	9.994700	9.196430	10.803570	10.005300	10.808870	4
57	9.191933	9.994680	9.197253	10.802747	10.005320	10.808067	3
58	9.192734	9.994660	9.198074	10.801926	10.005340	10.807266	2
59	9.193534	9.994640	9.198894	10.801106	10.005360	10.806466	1
60	9.194332	9.994620	9.199712	10.800287	10.005380	10.805668	0
	Sine.		Tang.		Secant.		Min.

81 Degrees.

# A Table of Artificial Sines,

9 Degrees.

Min.	Sine.		Tang.		Secant.	
0	9.194332	9.994620	9.199712	10.800287	10.005380	10.805668
1	9.195129	9.994600	9.200529	10.799471	10.005400	10.804876
2	9.195925	9.994580	9.201345	10.798655	10.005420	10.804075
3	9.196719	9.994560	9.202159	10.797841	10.005440	10.803281
4	9.197511	9.994540	9.202971	10.797029	10.005460	10.802489
5	9.198302	9.994519	9.203782	10.796217	10.005481	10.801698
6	9.199091	9.994499	9.204592	10.795408	10.005501	10.800909
7	9.199879	9.994479	9.205400	10.794600	10.005521	10.800121
8	9.200666	9.994459	9.206207	10.793793	10.005541	10.799334
9	9.201451	9.994438	9.207013	10.792987	10.005562	10.798549
10	9.202234	9.994418	9.207816	10.792183	10.005582	10.797765
11	9.203017	9.994397	9.208619	10.791381	10.005602	10.796983
12	9.203797	9.994377	9.209420	10.790580	10.005623	10.796203
13	9.204577	9.994357	9.210220	10.789780	10.005643	10.795423
14	9.205354	9.994336	9.211018	10.788982	10.005664	10.794645
15	9.206131	9.994316	9.211815	10.788185	10.005684	10.793869
16	9.206906	9.994295	9.212611	10.787389	10.005705	10.793094
17	9.207679	9.994274	9.213405	10.786595	10.005725	10.792320
18	9.208452	9.994254	9.214198	10.785802	10.005746	10.791548
19	9.209222	9.994233	9.214989	10.785011	10.005767	10.790778
20	9.209992	9.994212	9.215779	10.784220	10.005788	10.790008
21	9.210760	9.994191	9.216568	10.783432	10.005809	10.789240
22	9.211526	9.994171	9.217356	10.782644	10.005829	10.788474
23	9.212291	9.994150	9.218142	10.781858	10.005850	10.787709
24	9.213055	9.994129	9.218926	10.781074	10.005871	10.786945
25	9.213818	9.994108	9.219710	10.780290	10.005892	10.786182
26	9.214579	9.994087	9.220492	10.779508	10.005913	10.785421
27	9.215338	9.994066	9.221272	10.778728	10.005934	10.784662
28	9.216097	9.994045	9.222052	10.777948	10.005955	10.783903
29	9.216854	9.994024	9.222830	10.777170	10.005976	10.783146
30	9.217609	9.994003	9.223606	10.776393	10.005997	10.782391
	Sine.		Tang.		Secant.	

86 Degrees.

Min.

# Tangents and Secants.

9 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.217609	9.994003	9.223606	10.776393	10.005997	10.782391	30
31	9.218363	9.993981	9.224382	10.775618	10.006018	10.781636	29
32	9.219116	9.993960	9.225156	10.774844	10.006040	10.780884	28
33	9.219868	9.993939	9.225929	10.774071	10.006061	10.780132	27
34	9.220618	9.993918	9.226700	10.773300	10.006082	10.779382	26
35	9.221367	9.993896	9.227471	10.772529	10.006103	10.778633	25
36	9.222115	9.993875	9.228239	10.771760	10.006125	10.777885	24
37	9.222861	9.993854	9.229007	10.770993	10.006146	10.777139	23
38	9.223606	9.993832	9.229773	10.770226	10.006168	10.776394	22
39	9.224349	9.993811	9.230539	10.769461	10.006189	10.775650	21
40	9.225092	9.993789	9.231308	10.768698	10.006211	10.774908	20
41	9.225833	9.993768	9.232065	10.767935	10.006232	10.774167	19
42	9.226572	9.993746	9.232826	10.767174	10.006254	10.773427	18
43	9.227311	9.993725	9.233586	10.766414	10.006275	10.772689	17
44	9.228048	9.993703	9.234345	10.765655	10.006297	10.771952	16
45	9.228784	9.993681	9.235103	10.764897	10.006319	10.771216	15
46	9.229518	9.993660	9.235859	10.764141	10.006340	10.770481	14
47	9.230252	9.993638	9.236614	10.763386	10.006362	10.769748	13
48	9.230984	9.993616	9.237368	10.762632	10.006384	10.769016	12
49	9.231714	9.993594	9.238120	10.761880	10.006406	10.768285	11
50	9.232444	9.993572	9.238872	10.761128	10.006428	10.767556	10
51	9.233172	9.993550	9.239622	10.760378	10.006450	10.766828	9
52	9.233899	9.993528	9.240371	10.759629	10.006471	10.766101	8
53	9.234625	9.993506	9.241118	10.758881	10.006493	10.765375	7
54	9.235349	9.993484	9.241865	10.758135	10.006516	10.764651	6
55	9.236073	9.993462	9.242610	10.757390	10.006538	10.763927	5
56	9.236795	9.993440	9.243354	10.756646	10.006560	10.763205	4
57	9.237515	9.993418	9.244097	10.755903	10.006582	10.762485	3
58	9.238235	9.993396	9.244839	10.755161	10.006604	10.761765	2
59	9.238953	9.993374	9.245579	10.754421	10.006626	10.761047	1
60	9.239670	9.993351	9.246319	10.753681	10.006648	10.760330	0
	Sine.		Tang.		Secant.		

80 Degrees.

Min.

# A Table of Artificial Sines,

10 Degrees.

Min.	Sine.		Tang.		Secant.		
0	9.239670	9.993351	9.246319	10.753681	10.006648	10.760330	60
1	9.240386	9.993329	9.247057	10.752943	10.006671	10.759614	59
2	9.241101	9.993307	9.247794	10.752206	10.006693	10.758899	58
3	9.241814	9.993284	9.248530	10.751470	10.006715	10.758186	57
4	9.242526	9.993262	9.249264	10.750736	10.006738	10.757474	56
5	9.243237	9.993240	9.249998	10.750002	10.006760	10.756763	55
6	9.243947	9.993217	9.250730	10.749270	10.006783	10.756053	54
7	9.244656	9.993195	9.251461	10.748539	10.006805	10.755344	53
8	9.245363	9.993172	9.252191	10.747809	10.006828	10.754637	52
9	9.246069	9.993149	9.252920	10.747080	10.006851	10.753930	51
10	9.246775	9.993127	9.253648	10.746352	10.006873	10.753225	50
11	9.247478	9.993104	9.254374	10.745626	10.006895	10.752522	49
12	9.248181	9.993081	9.255100	10.744900	10.006919	10.751819	48
13	9.248883	9.993059	9.255824	10.744176	10.006941	10.751117	47
14	9.249583	9.993036	9.256547	10.743453	10.006964	10.750417	46
15	9.250282	9.993013	9.257269	10.742731	10.006987	10.749718	45
16	9.250980	9.992990	9.257990	10.742010	10.007010	10.749020	44
17	9.251677	9.992967	9.258710	10.741290	10.007033	10.748323	43
18	9.252373	9.992944	9.259428	10.740571	10.007056	10.747627	42
19	9.253067	9.992921	9.260146	10.739854	10.007079	10.746932	41
20	9.253761	9.992898	9.260862	10.739137	10.007102	10.746239	40
21	9.254453	9.992875	9.261578	10.738422	10.007125	10.745547	39
22	9.255144	9.992852	9.262292	10.737708	10.007148	10.744856	38
23	9.255834	9.992829	9.263005	10.736995	10.007171	10.744166	37
24	9.256523	9.992806	9.263717	10.736283	10.007194	10.743477	36
25	9.257211	9.992783	9.264428	10.735572	10.007217	10.742789	35
26	9.257898	9.992759	9.265138	10.734862	10.007240	10.742102	34
27	9.258583	9.992736	9.265847	10.734153	10.007264	10.741417	33
28	9.259268	9.992713	9.266555	10.733445	10.007287	10.740732	32
29	9.259951	9.992689	9.267261	10.732739	10.007310	10.740045	31
30	9.260633	9.992666	9.267967	10.732033	10.007334	10.739361	30
	Sine.		Tang.		Secant.		Min.

79 Degrees.



# Tangents and Secants.

10 Degrees.

Min.	Sine.	Tang.	Secant.	Min.
30	9.260633	9.992666	9.267967	10.732033
31	9.261314	9.992643	9.268671	10.731329
32	9.261994	9.992619	9.269375	10.730625
33	9.262673	9.992596	9.270077	10.729923
34	9.263351	9.992572	9.270779	10.729221
35	9.264027	9.992549	9.271479	10.728521
36	9.264703	9.992525	9.272178	10.727822
37	9.265377	9.992501	9.272876	10.727124
38	9.266051	9.992478	9.273573	10.726427
39	9.266723	9.992454	9.274269	10.725731
40	9.267394	9.992430	9.274964	10.725036
41	9.268065	9.992406	9.275658	10.724342
42	9.268734	9.992382	9.276351	10.723649
43	9.269402	9.992358	9.277043	10.722957
44	9.270069	9.992335	9.277734	10.722266
45	9.270735	9.992311	9.278424	10.721576
46	9.271400	9.992287	9.279113	10.720887
47	9.272063	9.992263	9.279801	10.720199
48	9.272726	9.992238	9.280488	10.719512
49	9.273388	9.992214	9.281174	10.718826
50	9.274049	9.992190	9.281858	10.718141
51	9.274708	9.992166	9.282542	10.717458
52	9.275367	9.992142	9.283225	10.716775
53	9.276024	9.992117	9.283907	10.716093
54	9.276681	9.992093	9.284588	10.715412
55	9.277337	9.992069	9.285268	10.714732
56	9.277991	9.992044	9.285947	10.714053
57	9.278644	9.992020	9.286624	10.713375
58	9.279297	9.991996	9.287301	10.712699
59	9.279948	9.991971	9.287977	10.712023
60	9.280599	9.991947	9.288652	10.711348
	Sine.	Tang.	Secant.	

79 Degrees.

# A Table of Artificial Sines,

11 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
0	9.280599	9.991947	9.288652	10.711348	10.008053	10.719401	60
1	9.281248	9.991922	9.289236	10.710674	10.008078	10.718752	59
2	9.281897	9.991897	9.289999	10.710001	10.008103	10.718103	58
3	9.282544	9.991873	9.290671	10.709329	10.008127	10.717456	57
4	9.283190	9.991848	9.291342	10.708658	10.008152	10.716809	56
5	9.283836	9.991823	9.292013	10.707987	10.008177	10.716164	55
6	9.284480	9.991799	9.292682	10.707318	10.008201	10.715520	54
7	9.285124	9.991774	9.293350	10.706650	10.008226	10.714876	53
8	9.285766	9.991749	9.294017	10.705983	10.008251	10.714234	52
9	9.286408	9.991724	9.294684	10.705316	10.008276	10.713592	51
10	9.287048	9.991699	9.295349	10.704651	10.008301	10.712952	50
11	9.287687	9.991674	9.296013	10.703987	10.008326	10.712312	49
12	9.288326	9.991649	9.296677	10.703323	10.008351	10.711674	48
13	9.288964	9.991624	9.297339	10.702660	10.008376	10.711036	47
14	9.289600	9.991599	9.298001	10.701999	10.008401	10.710400	46
15	9.290236	9.991574	9.298662	10.701338	10.008426	10.709764	45
16	9.290870	9.991549	9.299322	10.700678	10.008451	10.709130	44
17	9.291504	9.991524	9.299980	10.700020	10.008476	10.708496	43
18	9.292137	9.991498	9.300638	10.699362	10.008502	10.707863	42
19	9.292768	9.991473	9.301295	10.698705	10.008527	10.707231	41
20	9.293399	9.991448	9.301951	10.698049	10.008552	10.706601	40
21	9.294029	9.991422	9.302607	10.697393	10.008577	10.705971	39
22	9.294658	9.991397	9.303261	10.696739	10.008603	10.705342	38
23	9.295286	9.991372	9.303914	10.696086	10.008628	10.704714	37
24	9.295913	9.991346	9.304567	10.695433	10.008654	10.704087	36
25	9.296539	9.991321	9.305218	10.694782	10.008679	10.703461	35
26	9.297164	9.991295	9.305869	10.694131	10.008705	10.702836	34
27	9.297788	9.991270	9.306519	10.693481	10.008730	10.702212	33
28	9.298412	9.991244	9.307167	10.692832	10.008756	10.701588	32
29	9.299034	9.991218	9.307815	10.692184	10.008782	10.700960	31
30	9.299655	9.991193	9.308463	10.691537	10.008807	10.700345	30
	Sine.		Tang.		Secant.		Min.

78 Degrees.

# Tangents and Secants.

11 Degrees.

Min.	Sine.	Tang.	Secant.	
30	9.299655	9.991193	9.308463	10.691537 10.008807 10.700345 30
31	9.300276	9.991167	9.309109	10.690891 10.008833 10.699724 29
32	9.300895	9.991141	9.309754	10.690246 10.008859 10.699105 28
33	9.301514	9.991115	9.310398	10.689601 10.008885 10.698486 27
34	9.302132	9.991090	9.311042	10.688958 10.008910 10.697868 26
35	9.302748	9.991064	9.311685	10.688315 10.008936 10.697251 25
36	9.303364	9.991038	9.312327	10.687673 10.008962 10.696636 24
37	9.303979	9.991012	9.312967	10.687032 10.008988 10.696021 23
38	9.304593	9.990986	9.313608	10.686392 10.009014 10.695407 22
39	9.305207	9.990960	9.314247	10.685753 10.009041 10.694793 21
40	9.305819	9.990934	9.314885	10.685115 10.009066 10.694181 20
41	9.306430	9.990908	9.315523	10.684477 10.009092 10.693570 19
42	9.307041	9.990881	9.316159	10.683841 10.009118 10.692959 18
43	9.307650	9.990855	9.316795	10.683205 10.009145 10.692350 17
44	9.308259	9.990829	9.317430	10.682570 10.009171 10.691741 16
45	9.308867	9.990803	9.318064	10.681936 10.009197 10.691133 15
46	9.309474	9.990777	9.318697	10.681303 10.009223 10.690526 14
47	9.310080	9.990750	9.319329	10.680670 10.009250 10.689920 13
48	9.310685	9.990724	9.319961	10.680039 10.009276 10.689315 12
49	9.311289	9.990697	9.320592	10.679408 10.009303 10.688711 11
50	9.311893	9.990671	9.321222	10.678778 10.009329 10.688107 10
51	9.312495	9.990644	9.321851	10.678149 10.009355 10.687505 9
52	9.313097	9.990618	9.322479	10.677521 10.009382 10.686903 8
53	9.313698	9.990591	9.323106	10.676894 10.009409 10.686302 7
54	9.314297	9.990565	9.323733	10.676267 10.009435 10.685702 6
55	9.314896	9.990538	9.324358	10.675642 10.009462 10.685103 5
56	9.315495	9.990511	9.324983	10.675017 10.009488 10.684505 4
57	9.316092	9.990485	9.325607	10.674393 10.009515 10.683908 3
58	9.316688	9.990458	9.326230	10.673769 10.009542 10.683311 2
59	9.317284	9.990431	9.326853	10.673147 10.009569 10.682716 1
60	9.317879	9.990404	9.327474	10.672525 10.009596 10.682121 0
	Sine.	Tang.	Secant.	Min.

78 Degrees.

# A Table of Artificial Sines,

12 Degrees.

Min.	Sine.		Tang.		Secant.		
	09.317879	9.990464	9.327474	10.672525	10.009596	10.682121	60
	19.318473	9.990377	9.328095	10.671905	10.009622	10.681527	59
	29.319066	9.990351	9.328715	10.671285	10.009649	10.680934	58
	39.319658	9.990324	9.329334	10.670665	10.009676	10.680342	57
	49.320249	9.990297	9.329953	10.670047	10.009703	10.679750	56
	59.320840	9.990270	9.330570	10.669943	10.009730	10.679160	55
	69.321430	9.990243	9.331187	10.668813	10.009757	10.678570	54
	79.322019	9.990215	9.331803	10.668197	10.009784	10.677981	53
	89.322607	9.990188	9.332418	10.667582	10.009812	10.677393	52
	99.323194	9.990161	9.333033	10.666967	10.009839	10.676806	51
10	9.323780	9.990134	9.333646	10.666354	10.009866	10.676220	50
11	9.324366	9.990107	9.334259	10.665741	10.009893	10.675634	49
12	9.324950	9.990079	9.334871	10.665129	10.009921	10.675049	48
13	9.325534	9.990052	9.335482	10.664518	10.009948	10.674466	47
14	9.326117	9.990025	9.336093	10.663907	10.009975	10.673883	46
15	9.326700	9.989997	9.336702	10.663297	10.010003	10.673300	45
16	9.327281	9.989970	9.337311	10.662689	10.010030	10.672719	44
17	9.327862	9.989942	9.337919	10.662081	10.010058	10.672138	43
18	9.328442	9.989915	9.338527	10.661473	10.010085	10.671558	42
19	9.329021	9.989887	9.339133	10.660867	10.010113	10.670979	41
20	9.329599	9.989860	9.339739	10.660261	10.010140	10.670401	40
21	9.330176	9.989832	9.340344	10.659656	10.010169	10.669824	39
22	9.330753	9.989804	9.340948	10.659052	10.010196	10.669247	38
23	9.331328	9.989777	9.341552	10.658448	10.010223	10.668671	37
24	9.331903	9.989749	9.342155	10.657845	10.010251	10.668096	36
25	9.332478	9.989721	9.342757	10.657243	10.010279	10.667522	35
26	9.333051	9.989693	9.343358	10.656642	10.010307	10.666949	34
27	9.333624	9.989665	9.343958	10.656042	10.010335	10.666376	33
28	9.334195	9.989637	9.344558	10.655442	10.010363	10.665804	32
29	9.334766	9.989609	9.345157	10.654843	10.010390	10.665233	31
30	9.335337	9.989581	9.345755	10.654245	10.010418	10.664663	30
		Sine.		Tang.		Secant.	Min.

77 Degrees.



# Tangents and Secants.

12 Degrees.

Min.	Sine.	Tang.	Secant.	Min.			
30	9.335337	9.989581	9.345755	10.654245	10.010418	10.664663	30
31	9.335906	9.989553	9.346353	10.653647	10.010446	10.664094	29
32	9.336475	9.989525	9.346949	10.653051	10.010475	10.663525	28
33	9.337043	9.989497	9.347545	10.652455	10.010503	10.662957	27
34	9.337610	9.989469	9.348141	10.651859	10.010531	10.662390	26
35	9.338176	9.989441	9.348735	10.651265	10.010559	10.661827	25
36	9.338742	9.989413	9.349329	10.650671	10.010587	10.661258	24
37	9.339306	9.989384	9.349922	10.650078	10.010615	10.660693	23
38	9.339871	9.989356	9.350514	10.649486	10.010644	10.660129	22
39	9.340434	9.989328	9.351106	10.648894	10.010672	10.659566	21
40	9.340996	9.989299	9.351697	10.648303	10.010700	10.659004	20
41	9.341558	9.989271	9.352287	10.647713	10.010729	10.658442	19
42	9.342119	9.989243	9.352876	10.647124	10.010757	10.657881	18
43	9.342679	9.989214	9.353465	10.646535	10.010786	10.657321	17
44	9.343239	9.989186	9.354053	10.645947	10.010814	10.656761	16
45	9.343797	9.989157	9.354640	10.645360	10.010843	10.656203	15
46	9.344355	9.989128	9.355227	10.644777	10.010872	10.655645	14
47	9.344912	9.989100	9.355813	10.644187	10.010900	10.655088	13
48	9.345469	9.989071	9.356398	10.643602	10.010929	10.654531	12
49	9.346024	9.989042	9.356982	10.643018	10.010958	10.653975	11
50	9.346579	9.989014	9.357566	10.642434	10.010986	10.653421	10
51	9.347134	9.988985	9.358149	10.641851	10.011015	10.652866	9
52	9.347687	9.988956	9.358731	10.641269	10.011044	10.652313	8
53	9.348240	9.988927	9.359313	10.640687	10.011073	10.651760	7
54	9.348792	9.988898	9.359893	10.640106	10.011102	10.651208	6
55	9.349343	9.988869	9.360474	10.639526	10.011131	10.650656	5
56	9.349893	9.988840	9.361053	10.638947	10.011160	10.650107	4
57	9.350443	9.988811	9.361632	10.638368	10.011189	10.649557	3
58	9.350992	9.988782	9.362210	10.637790	10.011218	10.649008	2
59	9.351540	9.988753	9.362787	10.637213	10.011247	10.648459	1
60	9.352088	9.988724	9.363364	10.636636	10.011276	10.647912	0
	Sine.		Tang.		Secant.		Min.

77 Degrees.

77 Degrees.

# A Table of Artificial Sines,

13 Degrees.

Min.	Sine.		Tang.		Secant.	
0	9.352088	9.988724	9.363364	10.636636	10.011276	10.647912
1	9.352635	9.988685	9.363940	10.636060	10.011305	10.647365
2	9.353181	9.988665	9.364515	10.635484	10.011334	10.646819
3	9.353726	9.988636	9.365090	10.634910	10.011364	10.646274
4	9.354271	9.988607	9.365664	10.634336	10.011393	10.645729
5	9.354815	9.988578	9.366237	10.633763	10.011422	10.645185
6	9.355358	9.988548	9.366810	10.633190	10.011452	10.644642
7	9.355901	9.988519	9.367382	10.632618	10.011481	10.644099
8	9.356443	9.988489	9.367953	10.632047	10.011511	10.643557
9	9.356984	9.988460	9.368524	10.631476	10.011540	10.643016
10	9.357524	9.988430	9.369094	10.630908	10.011570	10.642476
11	9.358064	9.988401	9.369663	10.630337	10.011599	10.641936
12	9.358603	9.988371	9.370231	10.629768	10.011629	10.641397
13	9.359141	9.988341	9.370799	10.629201	10.011658	10.640859
14	9.359678	9.988312	9.371367	10.628633	10.011688	10.640321
15	9.360215	9.988282	9.371933	10.628067	10.011718	10.639785
16	9.360751	9.988252	9.372499	10.627501	10.011748	10.639248
17	9.361287	9.988222	9.373064	10.626935	10.011777	10.638713
18	9.361822	9.988193	9.373629	10.626371	10.011807	10.638178
19	9.362356	9.988163	9.374193	10.625807	10.011837	10.637644
20	9.362889	9.988133	9.374756	10.625244	10.011867	10.637111
21	9.363422	9.988103	9.375319	10.624681	10.011897	10.636578
22	9.363954	9.988073	9.375881	10.624119	10.011927	10.636046
23	9.364485	9.988043	9.376442	10.623558	10.011957	10.635515
24	9.365016	9.988013	9.377003	10.622997	10.011987	10.634984
25	9.365546	9.987983	9.377563	10.622437	10.012017	10.634454
26	9.366075	9.987952	9.378122	10.621877	10.012047	10.633925
27	9.366604	9.987922	9.378681	10.621319	10.012078	10.633396
28	9.367131	9.987892	9.379239	10.620761	10.012108	10.632868
29	9.367659	9.987862	9.379797	10.620203	10.012138	10.632341
30	9.368185	9.987831	9.380354	10.619646	10.012168	10.631815
	Sine.		Tang.		Secant.	

76. Degrees.

Min.

# Tangents and Secants.

13 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.368185	9.987831	9.380354	10.619646	10.012168	10.631815	30
31	9.368711	9.987801	9.380910	10.619090	10.012199	10.631289	29
32	9.369236	9.987771	9.381465	10.618534	10.012229	10.630764	28
33	9.369761	9.987740	9.382020	10.617979	10.012260	10.630239	27
34	9.370285	9.987710	9.382575	10.617425	10.012290	10.629715	26
35	9.370808	9.987679	9.383128	10.616871	10.012321	10.629192	25
36	9.371330	9.987649	9.383682	10.616318	10.012351	10.628670	24
37	9.371852	9.987618	9.384234	10.615766	10.012382	10.628148	23
38	9.372373	9.987588	9.384786	10.615214	10.012412	10.627626	22
39	9.372894	9.987557	9.385337	10.614663	10.012443	10.627106	21
40	9.373414	9.987526	9.385888	10.614112	10.012474	10.626586	20
41	9.373933	9.987495	9.386438	10.613562	10.012504	10.626067	19
42	9.374452	9.987465	9.386987	10.613013	10.012535	10.625548	18
43	9.374970	9.987434	9.387536	10.612464	10.012566	10.625030	17
44	9.375487	9.987403	9.388084	10.611916	10.012597	10.624513	16
45	9.376003	9.987372	9.388631	10.611369	10.012628	10.623997	15
46	9.376519	9.987341	9.389178	10.610822	10.012659	10.623481	14
47	9.377035	9.987310	9.389724	10.610276	10.012690	10.622965	13
48	9.377549	9.987279	9.390270	10.609730	10.012721	10.622451	12
49	9.378063	9.987248	9.390815	10.609185	10.012752	10.621937	11
50	9.378577	9.987217	9.391359	10.608640	10.012783	10.621423	10
51	9.379089	9.987186	9.391903	10.608097	10.012814	10.620911	9
52	9.379601	9.987155	9.392447	10.607553	10.012845	10.620398	8
53	9.380113	9.987124	9.392989	10.607011	10.012876	10.619887	7
54	9.380624	9.987092	9.393531	10.606449	10.012908	10.619376	6
55	9.381134	9.987061	9.394073	10.605927	10.012939	10.618866	5
56	9.381643	9.987030	9.394614	10.605386	10.012970	10.618357	4
57	9.382162	9.986998	9.395154	10.604846	10.013002	10.617848	3
58	9.382660	9.986967	9.395693	10.604306	10.013033	10.617339	2
59	9.383168	9.986936	9.396233	10.603767	10.013064	10.616832	1
60	9.383675	9.986904	9.396771	10.603225	10.013096	10.616325	0
	Sine.		Tang.		Secant.		Min.

76 Degrees.

# A Table of Artificial Sines,

14 Degrees.

Min.	Sine.		Tang.		Secant.		
0	9.383675	9.986904	9.396771	10.603229	10.013096	10.616325	60
1	9.384181	9.986873	9.397309	10.602691	10.013127	10.615818	59
2	9.384687	9.986841	9.397846	10.602154	10.013159	10.615313	58
3	9.385192	9.986809	9.398383	10.601617	10.013191	10.614808	57
4	9.385697	9.986778	9.398919	10.601081	10.013222	10.614303	56
5	9.386201	9.986746	9.399455	10.600545	10.013254	10.613799	55
6	9.386704	9.986714	9.399990	10.600010	10.013286	10.613296	54
7	9.387207	9.986683	9.400524	10.599476	10.013317	10.612793	53
8	9.387709	9.986651	9.401058	10.598942	10.013349	10.612291	52
9	9.388210	9.986619	9.401591	10.598409	10.013381	10.611790	51
10	9.388711	9.986587	9.402124	10.597876	10.013413	10.611289	50
11	9.389211	9.986555	9.402656	10.597344	10.013445	10.610789	49
12	9.389711	9.986523	9.403187	10.596813	10.013477	10.610289	48
13	9.390210	9.986491	9.403718	10.596282	10.013509	10.609790	47
14	9.390708	9.986459	9.404249	10.595751	10.013541	10.609292	46
15	9.391206	9.986427	9.404778	10.595222	10.013573	10.608794	45
16	9.391703	9.986395	9.405308	10.594692	10.013605	10.608297	44
17	9.392199	9.986363	9.405836	10.594164	10.013637	10.607801	43
18	9.392695	9.986331	9.406364	10.593636	10.013669	10.607305	42
19	9.393190	9.986299	9.406892	10.593108	10.013701	10.606809	41
20	9.393685	9.986266	9.407419	10.592581	10.013734	10.606315	40
21	9.394179	9.986234	9.407945	10.592055	10.013766	10.605821	39
22	9.394673	9.986202	9.408471	10.591529	10.013798	10.605327	38
23	9.395166	9.986169	9.408996	10.591003	10.013831	10.604834	37
24	9.395658	9.986137	9.409521	10.590479	10.013863	10.604342	36
25	9.396150	9.986104	9.410045	10.589955	10.013895	10.603850	35
26	9.396641	9.986072	9.410569	10.589431	10.013928	10.603359	34
27	9.397131	9.986039	9.411092	10.588908	10.013961	10.602868	33
28	9.397621	9.986007	9.411615	10.588385	10.013993	10.602378	32
29	9.398111	9.985974	9.412137	10.587863	10.014026	10.601889	31
30	9.398600	9.985942	9.412658	10.587342	10.014058	10.601400	30
	Sine.		Tang.		Secant.		Min.

75 Degrees.



# Tangents and Secants.

14 Degrees.

Min.	Sine.	Tang.	Secant.	Min.			
30	9.398600	9.985942	9.412658	10.587342	10.014058	10.601400	30
31	9.399088	9.985909	9.413179	10.586821	10.014091	10.600912	29
32	9.399575	9.985876	9.413699	10.586301	10.014124	10.600425	28
33	9.400062	9.985843	9.414219	10.585781	10.014157	10.599937	27
34	9.400549	9.985811	9.414738	10.585262	10.014189	10.599451	26
35	9.401035	9.985778	9.415257	10.584743	10.014222	10.598965	25
36	9.401520	9.985745	9.415775	10.584225	10.014255	10.598480	24
37	9.402005	9.985712	9.416293	10.583707	10.014288	10.597995	23
38	9.402489	9.985679	9.416810	10.583190	10.014321	10.597511	22
39	9.402973	9.985646	9.417326	10.582673	10.014354	10.597028	21
40	9.403455	9.985613	9.417842	10.582157	10.014387	10.596545	20
41	9.403938	9.985580	9.418358	10.581642	10.014420	10.596062	19
42	9.404420	9.985547	9.418873	10.581127	10.014453	10.595580	18
43	9.404901	9.985513	9.419387	10.580613	10.014486	10.595099	17
44	9.405382	9.985480	9.419901	10.580099	10.014520	10.594618	16
45	9.405862	9.985447	9.420415	10.579585	10.014553	10.594138	15
46	9.406341	9.985414	9.420927	10.579072	10.014586	10.593659	14
47	9.406820	9.985380	9.421440	10.578560	10.014619	10.593180	13
48	9.407299	9.985347	9.421951	10.578048	10.014653	10.592701	12
49	9.407777	9.985314	9.422463	10.577537	10.014686	10.592223	11
50	9.408254	9.985280	9.422973	10.577026	10.014720	10.591746	10
51	9.408731	9.985247	9.423484	10.576516	10.014753	10.591269	9
52	9.409207	9.985213	9.423993	10.576006	10.014787	10.590793	8
53	9.409682	9.985180	9.424503	10.575497	10.014820	10.590318	7
54	9.410157	9.985146	9.425011	10.574989	10.014854	10.589842	6
55	9.410632	9.985112	9.425519	10.574481	10.014887	10.589368	5
56	9.411106	9.985079	9.426027	10.573973	10.014921	10.588894	4
57	9.411579	9.985045	9.426534	10.573466	10.014955	10.588421	3
58	9.412052	9.985011	9.427041	10.572959	10.014989	10.587948	2
59	9.412524	9.984978	9.427547	10.572453	10.015022	10.587475	1
60	9.412996	9.984944	9.428052	10.571947	10.015056	10.587002	0
	Sine.		Tang.		Secant.		Min.

75 Degrees.

M

# A Table of Artificial Sines,

15 Degrees.

Min.	Sine.	Tang.	Secant.	
0	9.412996	9.984944	9.428052	10.571947
1	9.413467	9.984916	9.428557	10.571442
2	9.413938	9.984876	9.429062	10.570938
3	9.414408	9.984841	9.429566	10.570434
4	9.414878	9.984808	9.430070	10.569930
5	9.415347	9.984774	9.430573	10.569427
6	9.415815	9.984740	9.431075	10.568925
7	9.416283	9.984706	9.431577	10.568423
8	9.416751	9.984672	9.432079	10.567921
9	9.417217	9.984637	9.432580	10.567420
10	9.417684	9.984603	9.433080	10.566920
11	9.418149	9.984569	9.433580	10.566419
12	9.418615	9.984535	9.434080	10.565920
13	9.419079	9.984500	9.434579	10.565421
14	9.419544	9.984466	9.435078	10.564922
15	9.420007	9.984432	9.435576	10.564424
16	9.420470	9.984397	9.436073	10.563927
17	9.420933	9.984363	9.436570	10.563430
18	9.421395	9.984328	9.437067	10.562933
19	9.421857	9.984293	9.437563	10.562437
20	9.422318	9.984259	9.438059	10.561941
21	9.422778	9.984224	9.438554	10.561446
22	9.423238	9.984189	9.439048	10.560951
23	9.423697	9.984155	9.439543	10.560457
24	9.424156	9.984120	9.440036	10.559964
25	9.424615	9.984085	9.440529	10.559470
26	9.425073	9.984050	9.441022	10.558978
27	9.425530	9.984015	9.441514	10.558485
28	9.425987	9.983980	9.442006	10.557994
29	9.426443	9.983945	9.442497	10.557502
30	9.426899	9.983910	9.442988	10.557012
	Sine.	Tang.	Secant.	Min.

74 Degrees.

# Tangents and Secants.

15 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.426899	9.983910	9.442988	10.557012	10.016089	10.573101	30
31	9.427354	9.983875	9.443479	10.556521	10.016124	10.572646	29
32	9.427809	9.983840	9.443968	10.556031	10.016160	10.572191	28
33	9.428263	9.983805	9.444458	10.555542	10.016195	10.571737	27
34	9.428717	9.983770	9.444947	10.555053	10.016230	10.571283	26
35	9.429170	9.983735	9.445435	10.554565	10.016265	10.570830	25
36	9.429623	9.983700	9.445923	10.554077	10.016300	10.570377	24
37	9.430075	9.983664	9.446411	10.553589	10.016336	10.569925	23
38	9.430527	9.983629	9.446898	10.553102	10.016371	10.569473	22
39	9.430978	9.983594	9.447384	10.552616	10.016406	10.569022	21
40	9.431429	9.983558	9.447870	10.552130	10.016442	10.568571	20
41	9.431879	9.983523	9.448356	10.551644	10.016477	10.568121	19
42	9.432328	9.983487	9.448841	10.551159	10.016513	10.567671	18
43	9.432778	9.983452	9.449326	10.550674	10.016548	10.567222	17
44	9.433226	9.983416	9.449810	10.550190	10.016584	10.566774	16
45	9.433675	9.983380	9.450294	10.549706	10.016619	10.566325	15
46	9.434122	9.983345	9.450777	10.549223	10.016655	10.565878	14
47	9.434569	9.983309	9.451260	10.548740	10.016691	10.565431	13
48	9.435016	9.983273	9.451743	10.548257	10.016720	10.564984	12
49	9.435462	9.983238	9.452225	10.547775	10.016762	10.564538	11
50	9.435908	9.983202	9.452706	10.547294	10.016798	10.564092	10
51	9.436353	9.983166	9.453187	10.546813	10.016834	10.563647	9
52	9.436798	9.983130	9.453668	10.546332	10.016870	10.563202	8
53	9.437242	9.983094	9.454148	10.545852	10.016906	10.562758	7
54	9.437686	9.983058	9.454628	10.545372	10.016942	10.562314	6
55	9.438129	9.983022	9.455107	10.544893	10.016978	10.561871	5
56	9.438572	9.982986	9.455586	10.544414	10.017014	10.561428	4
57	9.439014	9.982950	9.456064	10.543936	10.017050	10.560986	3
58	9.439456	9.982914	9.456542	10.543458	10.017086	10.560544	2
59	9.439897	9.982878	9.457019	10.542981	10.017122	10.560103	1
60	9.440338	9.982842	9.457496	10.542504	10.017159	10.559662	0
	Sine.		Tang.		Secant.		Min.

74 Degrees.

# A Table of Artificial Sines,

16 Degrees.

Min.	Sine.	Tang.	Secant.	
0	9.440338	9.982842	9.457496	10.542504
1	9.440778	9.982805	9.457973	10.542027
2	9.441218	9.982769	9.458449	10.541551
3	9.441658	9.982733	9.458925	10.541075
4	9.442096	9.982696	9.459400	10.540600
5	9.442535	9.982660	9.459875	10.540125
6	9.442973	9.982623	9.460349	10.539651
7	9.443410	9.982587	9.460823	10.539177
8	9.443847	9.982551	9.461297	10.538703
9	9.444284	9.982514	9.461770	10.538230
10	9.444720	9.982477	9.462242	10.537758
11	9.445155	9.982441	9.462714	10.537285
12	9.445590	9.982404	9.463186	10.536814
13	9.446025	9.982367	9.463658	10.536342
14	9.446459	9.982331	9.464128	10.535871
15	9.446893	9.982294	9.464599	10.535401
16	9.447326	9.982257	9.465069	10.534931
17	9.447759	9.982220	9.465539	10.534461
18	9.448191	9.982183	9.466008	10.533992
19	9.448623	9.982146	9.466476	10.533523
20	9.449054	9.982109	9.466945	10.533055
21	9.449485	9.982072	9.467413	10.532587
22	9.449915	9.982035	9.467880	10.532120
23	9.450345	9.981998	9.468347	10.531653
24	9.450775	9.981961	9.468814	10.531186
25	9.451204	9.981924	9.469280	10.530720
26	9.451632	9.981886	9.469746	10.530254
27	9.452060	9.981849	9.470211	10.529789
28	9.452488	9.981812	9.470676	10.529324
29	9.452915	9.981774	9.471141	10.528859
30	9.453342	9.981737	9.471605	10.528395
	Sine.	Tang.	Secant.	

73 Degrees.

Min.



# Tangents and Secants.

16 Degrees.

Min.	Sine.	Tang.	Secant.	
30	9.453342	9.981737	9.471605 10.528395	10.018263 10.546658 30
31	9.453768	9.981699	9.472068 10.527931	10.018300 10.546233 29
32	9.454194	9.981662	9.472532 10.527468	10.018338 10.545806 28
33	9.454619	9.981624	9.472995 10.527005	10.018375 10.545381 27
34	9.455044	9.981587	9.473457 10.526543	10.018413 10.544956 26
35	9.455469	9.981549	9.473919 10.526081	10.018451 10.544531 25
36	9.455893	9.981512	9.474381 10.525619	10.018488 10.544107 24
37	9.456316	9.981474	9.474842 10.525158	10.018526 10.543684 23
38	9.456739	9.981436	9.475303 10.524697	10.018564 10.543261 22
39	9.457162	9.981399	9.475763 10.524237	10.018601 10.542838 21
40	9.457584	9.981361	9.476223 10.523777	10.018639 10.542416 20
41	9.458006	9.981323	9.476683 10.523317	10.018677 10.541994 19
42	9.458427	9.981285	9.477142 10.522858	10.018715 10.541573 18
43	9.458848	9.981247	9.477601 10.522399	10.018753 10.541152 17
44	9.459268	9.981209	9.478059 10.521941	10.018791 10.540732 16
45	9.459688	9.981171	9.478517 10.521483	10.018829 10.540312 15
46	9.460108	9.981133	9.478975 10.521025	10.018867 10.539892 14
47	9.460527	9.981095	9.479432 10.520568	10.018905 10.539473 13
48	9.460946	9.981057	9.479889 10.520111	10.018943 10.539054 12
49	9.461364	9.981019	9.480345 10.519655	10.018981 10.538636 11
50	9.461782	9.980980	9.480801 10.519199	10.019019 10.538218 10
51	9.462199	9.980942	9.481257 10.518743	10.019058 10.537801 9
52	9.462616	9.980904	9.481712 10.518288	10.019096 10.537384 8
53	9.463032	9.980866	9.482167 10.517833	10.019134 10.536968 7
54	9.463448	9.980927	9.482621 10.517379	10.019173 10.536552 6
55	9.463864	9.980789	9.483075 10.516925	10.019211 10.536136 5
56	9.464279	9.980750	9.483529 10.516471	10.019249 10.535721 4
57	9.464694	9.980712	9.483982 10.516018	10.019288 10.535306 3
58	9.465108	9.980673	9.484435 10.515565	10.019326 10.534892 2
59	9.465522	9.980635	9.484887 10.515113	10.019365 10.534478 1
60	9.465935	9.980596	9.485339 10.514661	10.019404 10.534065 0
	Sine.	Tang.	Secant.	Min.

73 Degrees.

73 Degrees.

# A Table of Artificial Sines,

17 Degrees.

Min.	Sine.	Tang.	Secant.	
0	9.465935	9.980396	9.485339	10.514661
1	9.466348	9.980558	9.485791	10.514209
2	9.466761	9.980519	9.486242	10.513758
3	9.467173	9.980480	9.486693	10.513307
4	9.467585	9.980441	9.487143	10.512857
5	9.467996	9.980403	9.487593	10.512407
6	9.468407	9.980364	9.488043	10.511957
7	9.468817	9.980325	9.488492	10.511508
8	9.469227	9.980286	9.488941	10.511059
9	9.469637	9.980247	9.489390	10.510610
10	9.470040	9.980208	9.489838	10.510162
11	9.470455	9.980169	9.490286	10.509714
12	9.470863	9.980130	9.490733	10.509267
13	9.471271	9.980091	9.491180	10.508820
14	9.471678	9.980052	9.491627	10.508373
15	9.472086	9.980012	9.492073	10.507927
16	9.472492	9.979973	9.492519	10.507481
17	9.472898	9.979934	9.492965	10.507035
18	9.473304	9.979895	9.493410	10.506590
19	9.473710	9.979855	9.493854	10.506145
20	9.474115	9.979816	9.494299	10.505701
21	9.474519	9.979776	9.494743	10.505257
22	9.474923	9.979737	9.495186	10.504813
23	9.475327	9.979697	9.495630	10.504370
24	9.475730	9.979659	9.496073	10.503927
25	9.476133	9.979618	9.496515	10.503485
26	9.476536	9.979578	9.496957	10.503043
27	9.476938	9.979539	9.497399	10.502601
28	9.477340	9.979499	9.497841	10.502159
29	9.477741	9.979459	9.498282	10.501718
30	9.478142	9.979419	9.498722	10.501278
	Sine.	Tang.	Secant.	

72 Degrees.

Min.

# Tangents and Secants.

17. Degress.

Min.	Sine.	Tang.	Secant.	Min.			
30	9.478142	9.979419	9.498722	10.501278	10.020580	10.521858	30
31	9.478542	9.979180	9.499163	10.500837	10.020620	10.521458	29
32	9.478942	9.979140	9.499603	10.500397	10.020660	10.521058	28
33	9.479342	9.979300	9.500042	10.499958	10.020700	10.520658	27
34	9.479741	9.979260	9.500481	10.499519	10.020740	10.520258	26
35	9.480140	9.979220	9.500920	10.499080	10.020780	10.519860	25
36	9.480538	9.979180	9.501359	10.498641	10.020820	10.519461	24
37	9.480937	9.979140	9.501797	10.498203	10.020860	10.519063	23
38	9.481334	9.979100	9.502235	10.497765	10.020900	10.518666	22
39	9.481731	9.979059	9.502672	10.497328	10.020941	10.518268	21
40	9.482128	9.979019	9.503109	10.496891	10.020981	10.517872	20
41	9.482525	9.978979	9.503546	10.496454	10.021021	10.517475	19
42	9.482921	9.978939	9.503982	10.496018	10.021061	10.517079	18
43	9.483316	9.978898	9.504418	10.495582	10.021102	10.516683	17
44	9.483712	9.978858	9.504854	10.495146	10.021142	10.516288	16
45	9.484107	9.978817	9.505289	10.494711	10.021182	10.515893	15
46	9.484501	9.978777	9.505724	10.494276	10.021223	10.515499	14
47	9.484895	9.978736	9.506159	10.493841	10.021263	10.515105	13
48	9.485289	9.978696	9.506593	10.493407	10.021304	10.514711	12
49	9.485682	9.978655	9.507027	10.492973	10.021345	10.514318	11
50	9.486075	9.978615	9.507460	10.492540	10.021385	10.513925	10
51	9.486467	9.978574	9.507893	10.492107	10.021426	10.513533	9
52	9.486859	9.978533	9.508326	10.491674	10.021467	10.513140	8
53	9.487251	9.978493	9.508759	10.491241	10.021507	10.512749	7
54	9.487643	9.978452	9.509191	10.490809	10.021548	10.512357	6
55	9.488033	9.978411	9.509622	10.490378	10.021589	10.511966	5
56	9.488424	9.978370	9.510054	10.489946	10.021630	10.511576	4
57	9.488814	9.978329	9.510485	10.489515	10.021671	10.511186	3
58	9.489204	9.978288	9.510916	10.489084	10.021712	10.510796	2
59	9.489593	9.978247	9.511346	10.488654	10.021753	10.510407	1
60	9.489982	9.978206	9.511776	10.488224	10.021794	10.510018	0
	Sine.	Tang.	Secant.				Min.

72 Degrees.

72 Degress.

## A Table of Artificial Sines,

18 Degrees.

Min.	Sine.	Tang.	Secant.	
0	9.489982	9.978206	9.511776	10.488224
1	9.490371	9.978165	9.512206	10.487794
2	9.490759	9.978142	9.512635	10.487365
3	9.491147	9.978083	9.513064	10.486396
4	9.491534	9.978042	9.513493	10.486507
5	9.491922	9.978001	9.513921	10.486079
6	9.492308	9.977959	9.514349	10.485651
7	9.492695	9.977918	9.514777	10.485223
8	9.493081	9.977877	9.515204	10.484796
9	9.493466	9.977835	9.515631	10.484369
10	9.493851	9.977794	9.516057	10.483942
11	9.494236	9.977752	9.516484	10.483516
12	9.494620	9.977711	9.516910	10.483090
13	9.495005	9.977669	9.517335	10.482665
14	9.495388	9.977628	9.517761	10.482239
15	9.495772	9.977586	9.518185	10.481814
16	9.496154	9.977544	9.518610	10.481390
17	9.496537	9.977503	9.519034	10.480966
18	9.496919	9.977461	9.519458	10.480542
19	9.497301	9.977419	9.519882	10.480118
20	9.497682	9.977377	9.520305	10.479695
21	9.498063	9.977335	9.520728	10.479272
22	9.498444	9.977293	9.521151	10.478849
23	9.498824	9.977251	9.521573	10.478427
24	9.499204	9.977209	9.521995	10.478005
25	9.499584	9.977167	9.522417	10.477583
26	9.499964	9.977125	9.522838	10.477162
27	9.500342	9.977083	9.523259	10.476741
28	9.500721	9.977041	9.523679	10.476320
29	9.501099	9.976999	9.524100	10.475900
30	9.501576	9.976957	9.524520	10.475480
	Sine.	Tang.	Secant.	

71 Degrees.

Min.
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# Tangents and Secants.

46

18 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.501476	9.976957	9.524520	10.475480	10.023043	10.498524	30
31	9.501854	9.976914	9.524939	10.475060	10.023086	10.498146	29
32	9.502231	9.976872	9.525359	10.474641	10.023128	10.497769	28
33	9.502607	9.976830	9.525778	10.474222	10.023170	10.497392	27
34	9.502984	9.976787	9.526197	10.473803	10.023213	10.497016	26
35	9.503360	9.976745	9.526615	10.473385	10.023255	10.496640	25
36	9.503735	9.976702	9.527033	10.472967	10.023298	10.496265	24
37	9.504110	9.976660	9.527451	10.472549	10.023340	10.495889	23
38	9.504485	9.976617	9.527868	10.472132	10.023383	10.495515	22
39	9.504860	9.976574	9.528285	10.471715	10.023425	10.495140	21
40	9.505234	9.976532	9.528702	10.471298	10.023468	10.494766	20
41	9.505608	9.976489	9.529119	10.470881	10.023511	10.494392	19
42	9.505981	9.976446	9.529535	10.470465	10.023554	10.494019	18
43	9.506354	9.976404	9.529950	10.470049	10.023596	10.493646	17
44	9.506727	9.976361	9.530366	10.469634	10.023639	10.493273	16
45	9.507099	9.976318	9.530781	10.469219	10.023682	10.492901	15
46	9.507471	9.976275	9.531196	10.468804	10.023725	10.492529	14
47	9.507842	9.976232	9.531611	10.468389	10.023768	10.492157	13
48	9.508214	9.976189	9.532025	10.467975	10.023811	10.491786	12
49	9.508585	9.976146	9.532439	10.467561	10.023854	10.491415	11
50	9.508956	9.976103	9.532853	10.467147	10.023897	10.491044	10
51	9.509326	9.976060	9.533266	10.466734	10.023940	10.490674	9
52	9.509696	9.976017	9.533679	10.466321	10.023983	10.490304	8
53	9.510065	9.975974	9.534092	10.465908	10.024026	10.489935	7
54	9.510434	9.975930	9.534504	10.465496	10.024070	10.489566	6
55	9.510803	9.975887	9.534916	10.465084	10.024113	10.489197	5
56	9.511172	9.975844	9.535328	10.464672	10.024156	10.488828	4
57	9.511540	9.975800	9.535739	10.464261	10.024200	10.488460	3
58	9.511907	9.975757	9.536150	10.463849	10.024243	10.488093	2
59	9.512275	9.975713	9.536561	10.463439	10.024287	10.487725	1
60	9.512642	9.975670	9.536977	10.463028	10.024330	10.487358	0
	Sine.		Tang.		Secant.		Min.

71 Degrees.

N

# A Table of Artificial Sines,

19 Degrees.

Min.	Sine.		Tang.		Secant.		
0	9.512642	9.975670	9.536972	10.463028	10.024330	10.487358	60
1	9.513009	9.975626	9.537382	10.462618	10.024373	10.486991	59
2	9.513375	9.975583	9.537792	10.462208	10.024417	10.486625	58
3	9.513741	9.975539	9.538202	10.461798	10.024461	10.486259	57
4	9.514107	9.975496	9.538611	10.461389	10.024504	10.485893	56
5	9.514472	9.975452	9.539020	10.460980	10.024548	10.485528	55
6	9.514837	9.975408	9.539429	10.460571	10.024592	10.485163	54
7	9.515202	9.975365	9.539837	10.460163	10.024635	10.484798	53
8	9.515566	9.975321	9.540245	10.459755	10.024679	10.484434	52
9	9.515930	9.975277	9.540653	10.459347	10.024723	10.484070	51
10	9.516294	9.975233	9.541061	10.458939	10.024767	10.483706	50
11	9.516657	9.975189	9.541468	10.458532	10.024811	10.483343	49
12	9.517020	9.975145	9.541875	10.458125	10.024855	10.482980	48
13	9.517382	9.975101	9.542281	10.457719	10.024899	10.482618	47
14	9.517745	9.975057	9.542688	10.457312	10.024943	10.482255	46
15	9.518107	9.975013	9.543094	10.456906	10.024987	10.481893	45
16	9.518468	9.974969	9.543499	10.456501	10.025031	10.481532	44
17	9.518829	9.974925	9.543905	10.456095	10.025075	10.481170	43
18	9.519190	9.974880	9.544310	10.455690	10.025120	10.480810	42
19	9.519551	9.974836	9.544715	10.455285	10.025164	10.480449	41
20	9.519911	9.974792	9.545119	10.454881	10.025208	10.480089	40
21	9.520271	9.974747	9.545524	10.454476	10.025252	10.479729	39
22	9.520631	9.974703	9.545928	10.454072	10.025297	10.479369	38
23	9.520990	9.974659	9.546331	10.453669	10.025341	10.479010	37
24	9.521349	9.974614	9.546735	10.453265	10.025386	10.478651	36
25	9.521707	9.974570	9.547138	10.452862	10.025430	10.478293	35
26	9.522066	9.974525	9.547540	10.452459	10.025475	10.477934	34
27	9.522423	9.974481	9.547943	10.452057	10.025511	10.477576	33
28	9.522781	9.974436	9.548345	10.451655	10.025556	10.477219	32
29	9.523138	9.974391	9.548747	10.451253	10.025600	10.476862	31
30	9.523495	9.974347	9.549149	10.450851	10.025653	10.476505	30
	Sine.		Tang.		Secant.		Min.

70 Degrees.

# Tangents and Secants.

19 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
30	9.523495	9.974347	9.549149	10.450851	10.025653	10.476505	30
31	9.523852	9.974302	9.549550	10.450450	10.025698	10.476148	29
32	9.524208	9.974257	9.549951	10.450049	10.025743	10.475792	28
33	9.524564	9.974212	9.550352	10.449648	10.025788	10.475436	27
34	9.524920	9.974167	9.550752	10.449248	10.025833	10.475080	26
35	9.525275	9.974122	9.551152	10.448847	10.025873	10.474725	25
36	9.525630	9.974077	9.551552	10.448448	10.025923	10.474370	24
37	9.525984	9.974032	9.551952	10.448048	10.025968	10.474016	23
38	9.526339	9.973987	9.552352	10.447649	10.026013	10.473661	22
39	9.526692	9.973942	9.552750	10.447250	10.026058	10.473307	21
40	9.527046	9.973897	9.553149	10.446851	10.026103	10.472954	20
41	9.527400	9.973852	9.553548	10.446452	10.026148	10.472600	19
42	9.527753	9.973807	9.553946	10.446054	10.026193	10.472247	18
43	9.528105	9.973761	9.554344	10.445656	10.026238	10.471895	17
44	9.528458	9.973716	9.554741	10.445258	10.026284	10.471542	16
45	9.528810	9.973671	9.555139	10.444861	10.026329	10.471190	15
46	9.529161	9.973625	9.555536	10.444464	10.026374	10.470839	14
47	9.529513	9.973580	9.555933	10.444067	10.026420	10.470487	13
48	9.529864	9.973535	9.556329	10.443671	10.026465	10.470136	12
49	9.530215	9.973489	9.556725	10.443274	10.026511	10.469785	11
50	9.530565	9.973443	9.557121	10.442879	10.026556	10.469435	10
51	9.530915	9.973398	9.557517	10.442483	10.026602	10.469085	9
52	9.531265	9.973352	9.557912	10.442086	10.026648	10.468735	8
53	9.531614	9.973307	9.558308	10.441692	10.026693	10.468386	7
54	9.531963	9.973261	9.558702	10.441297	10.026739	10.468036	6
55	9.532312	9.973215	9.559097	10.440903	10.026785	10.467688	5
56	9.532661	9.973169	9.559491	10.440509	10.026831	10.467339	4
57	9.533009	9.973124	9.559885	10.440115	10.026876	10.466991	3
58	9.533357	9.973078	9.560279	10.439721	10.026922	10.466643	2
59	9.533704	9.973032	9.560673	10.439327	10.026968	10.466296	1
60	9.534052	9.972986	9.561066	10.438934	10.027014	10.465948	0
	Sine.		Tang.		Secant.		

70 Degrees.

# A Table of Artificial Sines,

20 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
0	9.534052	9.972986	9.561066	10.438934	10.027014	10.465948	60
1	9.534399	9.972940	9.561459	10.438541	10.027060	10.465601	59
2	9.534745	9.972894	9.561851	10.438184	10.027106	10.465255	58
3	9.535091	9.972848	9.562244	10.437756	10.027152	10.464908	57
4	9.535437	9.972802	9.562636	10.437364	10.027198	10.464562	56
5	9.535783	9.972755	9.563028	10.436972	10.027245	10.464217	55
6	9.536129	9.972709	9.563419	10.436581	10.027291	10.463871	54
7	9.536474	9.972663	9.563811	10.436189	10.027337	10.463526	53
8	9.536818	9.972617	9.564202	10.435798	10.027383	10.463182	52
9	9.537163	9.972570	9.564592	10.435407	10.027430	10.462837	51
10	9.537507	9.972524	9.564983	10.435017	10.027476	10.462493	50
11	9.537851	9.972477	9.565373	10.434627	10.027522	10.462149	49
12	9.538194	9.972431	9.565763	10.434237	10.027569	10.461806	48
13	9.538537	9.972384	9.566153	10.433847	10.027615	10.461462	47
14	9.538880	9.972338	9.566542	10.433458	10.027662	10.461120	46
15	9.539223	9.972291	9.566932	10.433068	10.027709	10.460777	45
16	9.539565	9.972245	9.567320	10.432679	10.027755	10.460435	44
17	9.539907	9.972198	9.567709	10.432291	10.027802	10.460093	43
18	9.540249	9.972151	9.568097	10.431902	10.027849	10.459751	42
19	9.540590	9.972105	9.568486	10.431514	10.027895	10.459410	41
20	9.540931	9.972058	9.568873	10.431126	10.027942	10.459069	40
21	9.541272	9.972011	9.569261	10.430739	10.027989	10.458728	39
22	9.541613	9.971964	9.569648	10.430352	10.028036	10.458387	38
23	9.541953	9.971917	9.570035	10.429964	10.028083	10.458047	37
24	9.542293	9.971870	9.570422	10.429578	10.028130	10.457707	36
25	9.542632	9.971823	9.570809	10.429191	10.028177	10.457368	35
26	9.542971	9.971776	9.571195	10.428805	10.028224	10.457026	34
27	9.543310	9.971729	9.571581	10.428419	10.028271	10.456690	33
28	9.543649	9.971682	9.571967	10.428033	10.028318	10.456351	32
29	9.543987	9.971635	9.572352	10.427648	10.028365	10.456013	31
30	9.544325	9.971588	9.572738	10.427262	10.028412	10.455675	30
	Sine.		Tang.		Secant.		Min.

69 Degrees.



# Tangents and Secants.

48

20 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.544325	9.971588	9.572738	10.427262	10.028412	10.455675	30
31	9.544663	9.971540	9.573123	10.426877	10.028460	10.455337	29
32	9.545000	9.971493	9.573507	10.426493	10.028507	10.454999	28
33	9.545338	9.971446	9.573892	10.426108	10.028554	10.454662	27
34	9.545674	9.971398	9.574276	10.425724	10.028602	10.454325	26
35	9.546011	9.971351	9.574660	10.425340	10.028649	10.453989	25
36	9.546347	9.971303	9.575044	10.424956	10.028696	10.453653	24
37	9.546683	9.971256	9.575429	10.424573	10.028744	10.453317	23
38	9.547019	9.971208	9.575810	10.424190	10.028792	10.452981	22
39	9.547354	9.971161	9.576193	10.423807	10.028839	10.452646	21
40	9.547689	9.971113	9.576576	10.423424	10.028887	10.452311	20
41	9.548024	9.971065	9.576958	10.423041	10.028934	10.451976	19
42	9.548358	9.971018	9.577341	10.422659	10.028982	10.451641	18
43	9.548693	9.970970	9.577723	10.422277	10.029030	10.451307	17
44	9.549027	9.970922	9.578104	10.421896	10.029078	10.450973	16
45	9.549360	9.970874	9.578486	10.421514	10.029126	10.450640	15
46	9.549693	9.970826	9.578867	10.421133	10.029173	10.450306	14
47	9.550026	9.970779	9.579248	10.420752	10.029221	10.449973	13
48	9.550359	9.970731	9.579629	10.420371	10.029269	10.449641	12
49	9.550692	9.970683	9.580009	10.419991	10.029317	10.449308	11
50	9.551024	9.970635	9.580389	10.419611	10.029365	10.448976	10
51	9.551356	9.970586	9.580769	10.419231	10.029413	10.448644	9
52	9.551687	9.970538	9.581149	10.418851	10.029462	10.448313	8
53	9.552018	9.970490	9.581528	10.418472	10.029510	10.447982	7
54	9.552349	9.970442	9.581907	10.418093	10.029558	10.447651	6
55	9.552680	9.970394	9.582286	10.417714	10.029606	10.447320	5
56	9.553010	9.970345	9.582665	10.417335	10.029655	10.446989	4
57	9.553341	9.970297	9.583043	10.416956	10.029702	10.446659	3
58	9.553670	9.970249	9.583422	10.416578	10.029751	10.446330	2
59	9.554000	9.970200	9.583800	10.416200	10.029800	10.446000	1
60	9.554329	9.970152	9.584177	10.415823	10.029848	10.445671	0
	Sine.		Tang.		Secant.		Min.

69 Degrees.

# A Table of Artificial Sines,

21 Degrees.

Min.	Sine.	Tang.	Secant.
0	9.554329	9.970152	9.584177
1	9.554658	9.970103	9.584555
2	9.554987	9.970055	9.584932
3	9.555315	9.970006	9.585309
4	9.555643	9.969957	9.585686
5	9.555971	9.969909	9.586062
6	9.556299	9.969860	9.586439
7	9.556626	9.969811	9.586815
8	9.556953	9.969762	9.587190
9	9.557280	9.969714	9.587566
10	9.557606	9.969665	9.587941
11	9.557932	9.969616	9.588316
12	9.558258	9.969567	9.588691
13	9.558583	9.969518	9.589066
14	9.558909	9.969469	9.589440
15	9.559234	9.969420	9.589814
16	9.559558	9.969370	9.590158
17	9.559883	9.969321	9.590562
18	9.560207	9.969272	9.590935
19	9.560531	9.969223	9.591308
20	9.560855	9.969173	9.591681
21	9.561178	9.969124	9.592054
22	9.561501	9.969075	9.592426
23	9.561824	9.969025	9.592798
24	9.562146	9.968976	9.593170
25	9.562468	9.968926	9.593542
26	9.562795	9.968877	9.593914
27	9.563112	9.968827	9.594285
28	9.563433	9.968777	9.594656
29	9.563755	9.968728	9.595027
30	9.564075	9.968678	9.595397
	Sine.	Tang.	Secant.

68 Degrees.

## Tangents and Secants.

21 Degrees.

	Sine.		Tang.		Secant.	
30	9.564075	9.968678	9.595397	10.404602	10.031322	10.435925 30
31	9.564396	9.968628	9.595768	10.404232	10.031372	10.435605 29
32	9.564716	9.968578	9.596138	10.403862	10.031422	10.435284 28
33	9.565036	9.968528	9.596508	10.403492	10.031472	10.434964 27
34	9.565356	9.968478	9.596878	10.403122	10.031521	10.434644 26
35	9.565676	9.968429	9.597247	10.402753	10.031571	10.434324 25
36	9.565995	9.968379	9.597616	10.402384	10.031621	10.434005 24
37	9.566314	9.968328	9.597985	10.402015	10.031671	10.433686 23
38	9.566632	9.968278	9.598354	10.401646	10.031722	10.433368 22
39	9.566951	9.968228	9.598722	10.401277	10.031772	10.433049 21
40	9.567269	9.968178	9.599091	10.400909	10.031822	10.432731 20
41	9.567587	9.968128	9.599459	10.400541	10.031872	10.432413 19
42	9.567904	9.968078	9.599827	10.400173	10.031922	10.432096 18
43	9.568222	9.968027	9.600194	10.399806	10.031973	10.431778 17
44	9.568539	9.967977	9.600562	10.399438	10.032023	10.431461 16
45	9.568855	9.967927	9.600929	10.399071	10.032073	10.431144 15
46	9.569172	9.967876	9.601296	10.398704	10.032124	10.430828 14
47	9.569488	9.967826	9.601662	10.398337	10.032174	10.430512 13
48	9.569804	9.967775	9.602029	10.397971	10.032225	10.430196 12
49	9.570120	9.967725	9.602395	10.397605	10.032275	10.429880 11
50	9.570435	9.967674	9.602761	10.397239	10.032326	10.429564 10
51	9.570751	9.967623	9.603127	10.396873	10.032376	10.429249 9
52	9.571066	9.967573	9.603493	10.396507	10.032427	10.428934 8
53	9.571380	9.967522	9.603858	10.396142	10.032478	10.428620 7
54	9.571695	9.967471	9.604223	10.395777	10.032529	10.428305 6
55	9.572009	9.967420	9.604588	10.395412	10.032579	10.427991 5
56	9.572323	9.967370	9.604953	10.395047	10.032630	10.427677 4
57	9.572636	9.967319	9.605317	10.394683	10.032681	10.427364 3
58	9.572949	9.967268	9.605682	10.394318	10.032732	10.427050 2
59	9.573263	9.967217	9.606046	10.393954	10.032783	10.426737 1
60	9.573575	9.967166	9.606410	10.393590	10.032834	10.426425 0
	Sine.		Tang.		Secant.	Min.

68 Degrees.

# A Table of Artificial Sines,

22 Degrees.

Min.	Sine.		Tang.		Secant.		
0	9.573575	9.967166	9.606410	10.393590	10.032834	10.426425	50
1	9.573888	9.967115	9.606773	10.393227	10.032885	10.426112	59
2	9.574200	9.967064	9.607137	10.392863	10.032936	10.425800	58
3	9.574512	9.967012	9.607500	10.392500	10.032987	10.425488	57
4	9.574824	9.966961	9.607863	10.392137	10.033039	10.425176	56
5	9.575136	9.966910	9.608225	10.391775	10.033090	10.424864	55
6	9.575447	9.966859	9.608588	10.391412	10.033141	10.424553	54
7	9.575758	9.966807	9.608950	10.391050	10.033192	10.424242	53
8	9.576068	9.966756	9.609312	10.390688	10.033244	10.423931	52
9	9.576379	9.966705	9.609674	10.390326	10.033295	10.423621	51
10	9.576689	9.966653	9.610036	10.389964	10.033347	10.423311	50
11	9.576999	9.966602	9.610397	10.389602	10.033398	10.423001	49
12	9.577309	9.966550	9.610759	10.389241	10.033450	10.422691	48
13	9.577618	9.966499	9.611120	10.388880	10.033501	10.422382	47
14	9.577927	9.966447	9.611480	10.388520	10.033553	10.422072	46
15	9.578236	9.966395	9.611841	10.388159	10.033605	10.421764	45
16	9.578545	9.966344	9.612001	10.387799	10.033656	10.421455	44
17	9.578853	9.966292	9.612561	10.387438	10.033708	10.421146	43
18	9.579162	9.966240	9.612921	10.387079	10.033760	10.420838	42
19	9.579469	9.966188	9.613281	10.386719	10.033812	10.420530	41
20	9.579777	9.966136	9.613641	10.386359	10.033863	10.420223	40
21	9.580084	9.966085	9.614000	10.386000	10.033915	10.419915	39
22	9.580392	9.966033	9.614359	10.385641	10.033967	10.419608	38
23	9.580699	9.965981	9.614718	10.385282	10.034019	10.419301	37
24	9.581005	9.965928	9.615077	10.384923	10.034071	10.418995	36
25	9.581312	9.965876	9.615435	10.384565	10.034124	10.418688	35
26	9.581618	9.965824	9.615793	10.384207	10.034176	10.418382	34
27	9.581924	9.965772	9.616151	10.383849	10.034228	10.418076	33
28	9.582229	9.965720	9.616509	10.383491	10.034280	10.417771	32
29	9.582534	9.965668	9.616867	10.383133	10.034332	10.417465	31
30	9.582840	9.965615	9.617224	10.382776	10.034385	10.417160	30
	Sine.		Tang.		Secant.		Min.

67 Degrees.



# Tangents and Secants.

22 Degrees.

M.	Sine.	Tang.	Secant.	
30	9.582840	9.965615	9.617224	10.382776
31	9.583144	9.965563	9.617581	10.382418
32	9.583449	9.965511	9.617938	10.382061
33	9.583753	9.965458	9.618295	10.381705
34	9.584058	9.965406	9.618652	10.381348
35	9.584361	9.965353	9.619008	10.380992
36	9.584665	9.965301	9.619364	10.380635
37	9.584968	9.965248	9.619720	10.380279
38	9.585272	9.965195	9.620076	10.379924
39	9.585574	9.965143	9.620432	10.379568
40	9.585877	9.965090	9.620787	10.379213
41	9.586179	9.965037	9.621142	10.378858
42	9.586482	9.964984	9.621497	10.378503
43	9.586783	9.964931	9.621852	10.378148
44	9.587085	9.964878	9.622207	10.377793
45	9.587386	9.964826	9.622561	10.377439
46	9.587688	9.964773	9.622915	10.377085
47	9.587988	9.964719	9.623269	10.376731
48	9.588289	9.964666	9.623623	10.376377
49	9.588591	9.964613	9.623976	10.376024
50	9.588890	9.964560	9.624330	10.375670
51	9.589190	9.964507	9.624683	10.375317
52	9.589489	9.964454	9.625036	10.374964
53	9.589789	9.964400	9.625388	10.374612
54	9.590088	9.964347	9.625741	10.374259
55	9.590387	9.964294	9.626093	10.373907
56	9.590686	9.964240	9.626445	10.373555
57	9.590984	9.964187	9.626797	10.373203
58	9.591282	9.964133	9.627149	10.372851
59	9.591580	9.964080	9.627501	10.372499
60	9.591878	9.964026	9.627852	10.372148
	Sine.		Tang.	Secant.

67 Degrees.

O

# A Table of Artificial Sines,

23 Degrees.

Min.	Sine.		Tang.		Secant.		
0	9.591878	9.964026	9.627852	10.372148	10.035974	10.408122	60
1	9.592175	9.963972	9.628203	10.371797	10.036028	10.407824	59
2	9.592473	9.963919	9.628554	10.371448	10.036081	10.407527	58
3	9.592770	9.963865	9.628905	10.371095	10.036135	10.407230	57
4	9.593067	9.963811	9.629255	10.370745	10.036189	10.406933	56
5	9.593363	9.963757	9.629606	10.370394	10.036243	10.406637	55
6	9.593659	9.963704	9.629956	10.370044	10.036296	10.406341	54
7	9.593955	9.963650	9.630306	10.369694	10.036350	10.406044	53
8	9.594251	9.963596	9.630656	10.369344	10.036404	10.405749	52
9	9.594547	9.963542	9.631005	10.368995	10.036458	10.405453	51
10	9.594842	9.963488	9.631354	10.368645	10.036512	10.405158	50
11	9.595137	9.963434	9.631704	10.368296	10.036566	10.404863	49
12	9.595432	9.963379	9.632053	10.367947	10.036620	10.404568	48
13	9.595727	9.963325	9.632401	10.367598	10.036675	10.404273	47
14	9.596021	9.963271	9.632750	10.367250	10.036729	10.403979	46
15	9.596315	9.963217	9.633098	10.366901	10.036783	10.403685	45
16	9.596609	9.963162	9.633447	10.366553	10.036837	10.403391	44
17	9.596903	9.963108	9.633795	10.366205	10.036892	10.403097	43
18	9.597196	9.963054	9.634143	10.365857	10.036946	10.402803	42
19	9.597490	9.962999	9.634490	10.365510	10.037001	10.402510	41
20	9.597783	9.962945	9.634838	10.365162	10.037055	10.402217	40
21	9.598075	9.962890	9.635185	10.364815	10.037110	10.401925	39
22	9.598368	9.962836	9.635532	10.364468	10.037164	10.401632	38
23	9.598660	9.962781	9.635879	10.364121	10.037219	10.401340	37
24	9.598952	9.962727	9.636226	10.363774	10.037273	10.401048	36
25	9.599244	9.962672	9.636572	10.363428	10.037328	10.400756	35
26	9.599536	9.962617	9.636918	10.363081	10.037383	10.400464	34
27	9.599827	9.962562	9.637265	10.362735	10.037438	10.400173	33
28	9.600118	9.962508	9.637611	10.362389	10.037492	10.409882	32
29	9.600409	9.962453	9.637956	10.362044	10.037547	10.409591	31
30	9.600700	9.962398	9.638302	10.361698	10.037602	10.409300	30
	Sine.		Tang.		Secant.		Min.

66 Degrees.

# Tangents and Secants.

23 Degrees.

Min.	Sine.	Tang.	Secant.	
30	9.600700	9.962398	9.638302	10.361698
31	9.600990	9.962343	9.638647	10.361353
32	9.601280	9.962288	9.638992	10.361007
33	9.601570	9.962233	9.639337	10.360662
34	9.601860	9.962178	9.639682	10.360318
35	9.602149	9.962123	9.640027	10.359973
36	9.602439	9.962067	9.640371	10.359629
37	9.602728	9.962012	9.640716	10.359284
38	9.603017	9.961957	9.641060	10.358940
39	9.603305	9.961902	9.641404	10.358596
40	9.603594	9.961846	9.641747	10.358253
41	9.603882	9.961791	9.642091	10.357909
42	9.604170	9.961735	9.642434	10.357566
43	9.604457	9.961680	9.642777	10.357223
44	9.604745	9.961624	9.643120	10.356880
45	9.605032	9.961569	9.643463	10.356537
46	9.605319	9.961513	9.643806	10.356194
47	9.605606	9.961458	9.644148	10.355852
48	9.605892	9.961402	9.644490	10.355510
49	9.606179	9.961346	9.644832	10.355168
50	9.606465	9.961290	9.645174	10.354826
51	9.606751	9.961235	9.645516	10.354484
52	9.607036	9.961179	9.645857	10.354142
53	9.607322	9.961123	9.646199	10.353801
54	9.607607	9.961067	9.646540	10.353460
55	9.607892	9.961011	9.646881	10.353119
56	9.608176	9.960955	9.647222	10.352778
57	9.608451	9.960899	9.647562	10.352438
58	9.608745	9.960843	9.647903	10.352097
59	9.609029	9.960786	9.648243	10.351757
60	9.609313	9.960730	9.648583	10.351417
	Sine.	Tang.	Secant.	

66 Degrees.

# A Table of Artificial Sines,

24 Degrees.

Min.	Sine.	Tang.	Secant.	
0	9.609313	9.960730	9.648583	10.351417
1	9.609597	9.960674	9.648923	10.351077
2	9.609880	9.960618	9.649263	10.350737
3	9.610163	9.960561	9.649602	10.350398
4	9.610446	9.960505	9.649942	10.350058
5	9.610729	9.960448	9.650281	10.349719
6	9.611012	9.960392	9.650620	10.349380
7	9.611294	9.960335	9.650959	10.349041
8	9.611576	9.960279	9.651297	10.348703
9	9.611858	9.960222	9.651636	10.348364
10	9.612140	9.960165	9.651974	10.348026
11	9.612421	9.960109	9.652312	10.347688
12	9.612702	9.960052	9.652650	10.347350
13	9.612983	9.959995	9.652988	10.347012
14	9.613264	9.959938	9.653326	10.346674
15	9.613545	9.959881	9.653663	10.346337
16	9.613825	9.959825	9.654000	10.346000
17	9.614105	9.959768	9.654337	10.345662
18	9.614385	9.959711	9.654674	10.345326
19	9.614665	9.959653	9.655011	10.344989
20	9.614944	9.959596	9.655348	10.344652
21	9.615223	9.959539	9.655684	10.344316
22	9.615502	9.959482	9.656020	10.343980
23	9.615781	9.959425	9.656356	10.343644
24	9.616060	9.959367	9.656692	10.343308
25	9.616338	9.959310	9.657028	10.342972
26	9.616616	9.959253	9.657364	10.342636
27	9.616894	9.959195	9.657699	10.342301
28	9.617172	9.959138	9.658034	10.341966
29	9.617450	9.959080	9.658369	10.341631
30	9.617727	9.959023	9.658704	10.341296
	Sine.		Tang.	Secant.

65 Degrees.

Min.



# Tangents and Secants.

24 Degrees.

Min.	Sine.	Tang.	Secant.	Min.			
30	9.617727	9.959023	9.658704	10.341296	10.040977	10.382273	30
31	9.618004	9.958965	9.659039	10.340961	10.041035	10.381996	29
32	9.618281	9.958908	9.659373	10.340627	10.041092	10.381719	28
33	9.618558	9.958850	9.659708	10.340292	10.041150	10.381442	27
34	9.618834	9.958792	9.660042	10.339958	10.041208	10.381166	26
35	9.619110	9.958734	9.660376	10.339624	10.041265	10.380890	25
36	9.619386	9.958677	9.660710	10.339290	10.041323	10.380614	24
37	9.619662	9.958619	9.661043	10.338956	10.041381	10.380338	23
38	9.619938	9.958561	9.661377	10.338623	10.041439	10.380062	22
39	9.620213	9.958503	9.661710	10.338290	10.041497	10.379787	21
40	9.620488	9.958445	9.662043	10.337957	10.041555	10.379512	20
41	9.620763	9.958387	9.662376	10.337623	10.041613	10.379237	19
42	9.621038	9.958329	9.662709	10.337291	10.041671	10.378962	18
43	9.621313	9.958271	9.663042	10.336958	10.041729	10.378687	17
44	9.621587	9.958212	9.663374	10.336625	10.041787	10.378413	16
45	9.621861	9.958154	9.663707	10.336293	10.041846	10.378139	15
46	9.622135	9.958096	9.664039	10.335961	10.041904	10.377865	14
47	9.622409	9.958038	9.664371	10.335629	10.041962	10.377591	13
48	9.622682	9.957979	9.664703	10.335297	10.042021	10.377318	12
49	9.622956	9.957921	9.665035	10.334965	10.042079	10.377044	11
50	9.623229	9.957863	9.665366	10.334634	10.042137	10.376771	10
51	9.623502	9.957804	9.665697	10.334302	10.042196	10.376498	9
52	9.623774	9.957746	9.666029	10.333971	10.042254	10.376226	8
53	9.624047	9.957687	9.666360	10.333640	10.042313	10.375953	7
54	9.624319	9.957628	9.666691	10.333309	10.042372	10.375681	6
55	9.624591	9.957570	9.667021	10.332979	10.042430	10.375409	5
56	9.624863	9.957511	9.667352	10.332648	10.042489	10.375137	4
57	9.625135	9.957452	9.667682	10.332318	10.042548	10.374865	3
58	9.625406	9.957393	9.668013	10.331987	10.042607	10.374594	2
59	9.625677	9.957335	9.668343	10.331657	10.042665	10.374323	1
60	9.625948	9.957276	9.668672	10.331327	10.042724	10.374052	0
	Sine.	Tang.	Secant.				

65 Degrees.

65 Degrees.

# A Table of Artificial Sines,

25 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
0	9.625948	9.957276	9.668672	10.331327	10.042724	10.374052	60
1	9.626219	9.957217	9.669002	10.330998	10.042783	10.373781	59
2	9.626490	9.957158	9.669332	10.330668	10.042842	10.373510	58
3	9.626760	9.957099	9.669661	10.330339	10.042901	10.373240	57
4	9.627030	9.957040	9.669991	10.330009	10.042960	10.372970	56
5	9.627300	9.956981	9.670320	10.329680	10.043019	10.372700	55
6	9.627570	9.956921	9.670649	10.329351	10.043078	10.372430	54
7	9.627840	9.956862	9.670977	10.329023	10.043138	10.372160	53
8	9.628109	9.956803	9.671306	10.328694	10.043197	10.371891	52
9	9.628378	9.956744	9.671634	10.328365	10.043256	10.371622	51
10	9.628647	9.956684	9.671963	10.328037	10.043316	10.371353	50
11	9.628916	9.956625	9.672291	10.327709	10.043375	10.371084	49
12	9.629184	9.956566	9.672619	10.327381	10.043434	10.370815	48
13	9.629453	9.956506	9.672947	10.327053	10.043494	10.370547	47
14	9.629721	9.956447	9.673274	10.326725	10.043553	10.370279	46
15	9.629988	9.956387	9.673602	10.326398	10.043613	10.370011	45
16	9.630255	9.956327	9.673929	10.326071	10.043673	10.369743	44
17	9.630524	9.956268	9.674257	10.325743	10.043732	10.369476	43
18	9.630792	9.956208	9.674584	10.325416	10.043792	10.369208	42
19	9.631059	9.956148	9.674910	10.325089	10.043852	10.368941	41
20	9.631326	9.956089	9.675237	10.324763	10.043911	10.368674	40
21	9.63159	9.956029	9.675564	10.324436	10.043971	10.368407	39
22	9.631859	9.955969	9.675890	10.324110	10.044031	10.368141	38
23	9.632125	9.955909	9.676216	10.323783	10.044091	10.367874	37
24	9.632392	9.955849	9.676543	10.323457	10.044151	10.367608	36
25	9.632658	9.955789	9.676869	10.323131	10.044211	10.367342	35
26	9.632923	9.955729	9.677194	10.322806	10.044271	10.367077	34
27	9.633189	9.955669	9.677520	10.322480	10.044331	10.366811	33
28	9.633454	9.955609	9.677846	10.322154	10.044391	10.366546	32
29	9.633719	9.955548	9.678171	10.321829	10.044451	10.366281	31
30	9.633984	9.955488	9.678496	10.321504	10.044512	10.366016	30
	Sine.		Tang.		Secant.		Min.

64 Degrees.

# Tangents and Secants.

25 Degrees.

Min.	Sine.	Tang.	Secant.	Min.			
30	9.633984	9.955488	9.678496	10.321504	10.044512	10.366016	30
31	9.634249	9.955428	9.678821	10.321179	10.044572	10.365751	29
32	9.634514	9.955368	9.679146	10.320854	10.044632	10.365486	28
33	9.634778	9.955307	9.679471	10.320529	10.044693	10.365222	27
34	9.635042	9.955247	9.679795	10.320205	10.044753	10.364958	26
35	9.635306	9.955186	9.680120	10.319880	10.044814	10.364694	25
36	9.635570	9.955126	9.680444	10.319556	10.044874	10.364430	24
37	9.635833	9.955065	9.680768	10.319232	10.044935	10.364166	23
38	9.636097	9.955005	9.681092	10.318908	10.044995	10.363903	22
39	9.636360	9.954944	9.681416	10.318584	10.045056	10.363640	21
40	9.636623	9.954883	9.681740	10.318260	10.045117	10.363377	20
41	9.636886	9.954823	9.682063	10.317937	10.045177	10.363114	19
42	9.637148	9.954762	9.682386	10.317613	10.045238	10.362852	18
43	9.637411	9.954701	9.682710	10.317290	10.045299	10.362589	17
44	9.637673	9.954640	9.683033	10.316967	10.045359	10.362327	16
45	9.637935	9.954579	9.683356	10.316644	10.045421	10.362065	15
46	9.638197	9.954518	9.683678	10.316321	10.045482	10.361803	14
47	9.638458	9.954457	9.684001	10.315999	10.045543	10.361541	13
48	9.638720	9.954396	9.684324	10.315676	10.045604	10.361280	12
49	9.638981	9.954335	9.684646	10.315354	10.045665	10.361019	11
50	9.639242	9.954274	9.684968	10.315032	10.045726	10.360758	10
51	9.639503	9.954213	9.685290	10.314710	10.045787	10.360497	9
52	9.639764	9.954152	9.685612	10.314388	10.045848	10.360236	8
53	9.640024	9.954090	9.685934	10.314066	10.045910	10.359976	7
54	9.640284	9.954029	9.686255	10.313745	10.045971	10.359716	6
55	9.640544	9.953968	9.686577	10.313423	10.046032	10.359455	5
56	9.640804	9.953906	9.686898	10.313102	10.046094	10.359196	4
57	9.641064	9.953845	9.687219	10.312781	10.046155	10.358936	3
58	9.641323	9.953783	9.687540	10.312460	10.046217	10.358676	2
59	9.641583	9.953721	9.687861	10.312139	10.046278	10.358417	1
60	9.641842	9.953660	9.688182	10.311818	10.046340	10.358158	0
	Sine.		Tang.		Secant.		Min.

64 Degrees.

64 Degrees.

# A Table of Artificial Sines,

26 Degrees.

Min.	Sine.	Tang.	Secant.	
0	9.641842	9.953660	9.688182	10.311818
1	9.642101	9.953598	9.688502	10.311498
2	9.642360	9.953537	9.688823	10.311177
3	9.642618	9.953475	9.689143	10.310857
4	9.642876	9.953413	9.689463	10.310537
5	9.643135	9.953351	9.689783	10.310217
6	9.643393	9.953290	9.690103	10.309897
7	9.643650	9.953228	9.690423	10.309575
8	9.643908	9.953166	9.690742	10.309258
9	9.644165	9.953104	9.691062	10.308938
10	9.644423	9.953042	9.691381	10.308619
11	9.644680	9.952980	9.691700	10.308300
12	9.644936	9.952917	9.692019	10.307981
13	9.645193	9.952855	9.692338	10.307662
14	9.645450	9.952793	9.692656	10.307343
15	9.645706	9.952731	9.692975	10.307025
16	9.645962	9.952668	9.693293	10.306707
17	9.646218	9.952606	9.693612	10.306388
18	9.646473	9.952544	9.693930	10.306070
19	9.646729	9.952481	9.694248	10.305752
20	9.646984	9.952419	9.694566	10.305434
21	9.647239	9.952356	9.694883	10.305117
22	9.647494	9.952294	9.695201	10.304799
23	9.647749	9.952231	9.695518	10.304482
24	9.648004	9.952168	9.695835	10.304164
25	9.648258	9.952105	9.696153	10.303847
26	9.648512	9.952043	9.696470	10.303530
27	9.648766	9.951980	9.696786	10.303213
28	9.649020	9.951917	9.697103	10.302897
29	9.649274	9.951854	9.697420	10.302580
30	9.649527	9.951791	9.697736	10.302264
	Sine.		Tang.	Secant.

63 Degrees.

Min.



# Tangents and Secants.

54

26 Degrees.

Min.	Sine.	Tang.	Secant.	Min.			
30	9.649527	9.951791	9.697736	10.302264	10.048209	10.350473	30
31	9.649781	9.951728	9.698053	10.301947	10.048272	10.350219	29
32	9.650034	9.951665	9.698369	10.301631	10.048335	10.349966	28
33	9.650287	9.951602	9.698685	10.301315	10.048398	10.349713	27
34	9.650539	9.951539	9.699001	10.300999	10.048461	10.349460	26
35	9.650792	9.951476	9.699316	10.300684	10.048524	10.349208	25
36	9.651044	9.951412	9.699632	10.300368	10.048588	10.348956	24
37	9.651297	9.951349	9.699947	10.300053	10.048651	10.348703	23
38	9.651549	9.951286	9.700263	10.299737	10.048714	10.348451	22
39	9.651800	9.951222	9.700578	10.299422	10.048778	10.348200	21
40	9.652052	9.951159	9.700893	10.299107	10.048841	10.347948	20
41	9.652303	9.951096	9.701208	10.298792	10.048904	10.347696	19
42	9.652555	9.951032	9.701523	10.298477	10.048968	10.347445	18
43	9.652806	9.950968	9.701837	10.298163	10.049031	10.347194	17
44	9.653057	9.950905	9.702152	10.297848	10.049095	10.346943	16
45	9.653307	9.950841	9.702466	10.297534	10.049159	10.346692	15
46	9.653558	9.950777	9.702780	10.297219	10.049222	10.346442	14
47	9.653808	9.950714	9.703095	10.296905	10.049286	10.346192	13
48	9.654059	9.950650	9.703409	10.296591	10.049350	10.345941	12
49	9.654309	9.950586	9.703722	10.296277	10.049414	10.345691	11
50	9.654558	9.950522	9.704036	10.295964	10.049478	10.345442	10
51	9.654808	9.950458	9.704350	10.295650	10.049542	10.345192	9
52	9.655057	9.950394	9.704663	10.295337	10.049606	10.344942	8
53	9.655307	9.950330	9.704976	10.295023	10.049670	10.344693	7
54	9.655556	9.950266	9.705290	10.294710	10.049734	10.344444	6
55	9.655805	9.950202	9.705603	10.294397	10.049798	10.344195	5
56	9.656054	9.950138	9.705916	10.294084	10.049862	10.343946	4
57	9.656302	9.950074	9.706228	10.293772	10.049926	10.343698	3
58	9.656550	9.950000	9.706541	10.293459	10.049990	10.343449	2
59	9.656799	9.959945	9.706853	10.293146	10.050055	10.343201	1
60	9.657042	9.959881	9.707166	10.292834	10.050119	10.342953	0
	Sine.	Tang.			Secant.		Min.

63 Degree.

63 Degrees.

P

# A Table of Artificial Sines,

27 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
0	9.657047	9.949881	9.707166	10.292834	10.050119	10.342953	60
1	9.657295	9.949816	9.707478	10.292522	10.050183	10.342705	59
2	9.657542	9.949752	9.707790	10.292210	10.050248	10.342458	58
3	9.657790	9.949688	9.708102	10.291898	10.050312	10.342210	57
4	9.658037	9.949623	9.708414	10.291586	10.050377	10.341963	56
5	9.658284	9.949558	9.708726	10.291274	10.050441	10.341716	55
6	9.658531	9.949494	9.709037	10.290963	10.050506	10.341469	54
7	9.658778	9.949429	9.709349	10.290651	10.050571	10.341222	53
8	9.659025	9.949364	9.709660	10.290340	10.050635	10.340975	52
9	9.659271	9.949300	9.709971	10.290029	10.050700	10.340729	51
10	9.659517	9.949235	9.710282	10.289718	10.050765	10.340483	50
11	9.659763	9.949170	9.710593	10.289407	10.050830	10.340237	49
12	9.660009	9.949105	9.710904	10.289096	10.050895	10.339991	48
13	9.660255	9.949040	9.711215	10.288785	10.050960	10.339745	47
14	9.660500	9.948975	9.711525	10.288475	10.051025	10.339499	46
15	9.660746	9.948910	9.711836	10.288164	10.051090	10.339254	45
16	9.660991	9.948845	9.712146	10.287854	10.051155	10.339009	44
17	9.661236	9.948780	9.712456	10.287544	10.051220	10.338764	43
18	9.661481	9.948715	9.712766	10.287234	10.051285	10.338519	42
19	9.661726	9.948649	9.713076	10.286924	10.051350	10.338274	41
20	9.661970	9.948584	9.713386	10.286614	10.051416	10.338030	40
21	9.662214	9.948519	9.713696	10.286304	10.051481	10.337785	39
22	9.662459	9.948453	9.714005	10.285995	10.051546	10.337541	38
23	9.662703	9.948388	9.714314	10.285685	10.051612	10.337297	37
24	9.662946	9.948323	9.714624	10.285376	10.051677	10.337054	36
25	9.663190	9.948257	9.714933	10.285067	10.051743	10.336810	35
26	9.663433	9.948192	9.715242	10.284758	10.051808	10.336566	34
27	9.663677	9.948126	9.715551	10.284449	10.051874	10.336323	33
28	9.663920	9.948060	9.715859	10.284140	10.051940	10.336080	32
29	9.664163	9.947995	9.716168	10.283832	10.052005	10.335837	31
30	9.664406	9.947929	9.716477	10.283523	10.052071	10.335594	30
	Sine.		Tang.		Secant.		Min.

62 Degrees.

# Tangents and Secants.

28 Degrees.

Min.	Sine.	Tang.	Secant.	Min.			
30	9.678663	9.943898	9.734764	10.265236	10.056101	10.321337	30
31	9.678895	9.943830	9.735066	10.264934	10.056170	10.321104	29
32	9.679128	9.943761	9.735367	10.264633	10.056239	10.320872	28
33	9.679360	9.943692	9.735668	10.264332	10.056307	10.320640	27
34	9.679592	9.943624	9.735968	10.264031	10.056376	10.320408	26
35	9.679824	9.943555	9.736269	10.263731	10.056445	10.320176	25
36	9.680056	9.943486	9.736570	10.263430	10.056514	10.319944	24
37	9.680288	9.943417	9.736870	10.263129	10.056583	10.319712	23
38	9.680519	9.943348	9.737171	10.262829	10.056652	10.319480	22
39	9.680750	9.943279	9.737471	10.262529	10.056721	10.319248	21
40	9.680982	9.943210	9.737771	10.262229	10.056790	10.319016	20
41	9.681213	9.943141	9.738071	10.261929	10.056859	10.318784	19
42	9.681443	9.943072	9.738371	10.261629	10.056928	10.318552	18
43	9.681674	9.943003	9.738671	10.261329	10.056997	10.318320	17
44	9.681905	9.942933	9.738971	10.261029	10.057066	10.318088	16
45	9.682135	9.942864	9.739271	10.260729	10.057136	10.317856	15
46	9.682365	9.942795	9.739570	10.260429	10.057205	10.317624	14
47	9.682595	9.942725	9.739870	10.260129	10.057274	10.317392	13
48	9.682825	9.942656	9.740169	10.259829	10.057344	10.317160	12
49	9.683055	9.942587	9.740468	10.259529	10.057413	10.316928	11
50	9.683284	9.942517	9.740767	10.259229	10.057483	10.316696	10
51	9.683514	9.942448	9.741066	10.258929	10.057552	10.316464	9
52	9.683743	9.942378	9.741365	10.258629	10.057622	10.316232	8
53	9.683972	9.942308	9.741664	10.258329	10.057692	10.316000	7
54	9.684201	9.942239	9.741962	10.258029	10.057761	10.315768	6
55	9.684430	9.942169	9.742261	10.257729	10.057831	10.315536	5
56	9.684658	9.942099	9.742559	10.257429	10.057901	10.315304	4
57	9.684887	9.942029	9.742858	10.257129	10.057971	10.315072	3
58	9.685115	9.941959	9.743156	10.256829	10.058041	10.314840	2
59	9.685343	9.941889	9.743454	10.256529	10.058111	10.314608	1
60	9.685571	9.941819	9.743752	10.256229	10.058181	10.314376	0
	Sine.		Tang.			Secant.	

61 Degrees.

61 Degrees.

# A Table of Artificial Sines,

29 Degrees:

Min.	Sine.	Tang.	Secant.				
0	9.685571	9.941819	9.743752	10.256248	10.058181	10.314429	60
1	9.685799	9.941749	9.744050	10.255950	10.058252	10.314201	59
2	9.686027	9.941679	9.744348	10.255652	10.058321	10.313973	58
3	9.686254	9.941609	9.744645	10.255355	10.058391	10.313746	57
4	9.686482	9.941539	9.744943	10.255057	10.058461	10.313518	56
5	9.686709	9.941468	9.745240	10.254760	10.058531	10.313291	55
6	9.686936	9.941398	9.745538	10.254462	10.058602	10.313064	54
7	9.687163	9.941328	9.745835	10.254165	10.058672	10.312837	53
8	9.687389	9.941257	9.746132	10.253868	10.058742	10.312610	52
9	9.687616	9.941187	9.746429	10.253571	10.058813	10.312384	51
10	9.687842	9.941117	9.746726	10.253274	10.058883	10.312157	50
11	9.688069	9.941046	9.747023	10.252977	10.058954	10.311931	49
12	9.688295	9.940975	9.747319	10.252681	10.059024	10.311705	48
13	9.688521	9.940905	9.747616	10.252384	10.059095	10.311479	47
14	9.688747	9.940834	9.747912	10.252087	10.059166	10.311253	46
15	9.688972	9.940763	9.748209	10.251791	10.059237	10.313028	45
16	9.689198	9.940693	9.748505	10.251495	10.059307	10.310802	44
17	9.689423	9.940622	9.748801	10.251199	10.059378	10.310577	43
18	9.689648	9.940551	9.749097	10.250903	10.059449	10.310352	42
19	9.689873	9.940480	9.749393	10.250607	10.059520	10.310127	41
20	9.690098	9.940409	9.749689	10.250311	10.059591	10.309902	40
21	9.690323	9.940338	9.749985	10.250015	10.059662	10.309677	39
22	9.690548	9.940267	9.750281	10.249719	10.059733	10.309452	38
23	9.690772	9.940196	9.750576	10.249424	10.059804	10.309228	37
24	9.690996	9.940125	9.750872	10.249128	10.059875	10.309004	36
25	9.691220	9.940053	9.751167	10.248833	10.059946	10.308779	35
26	9.691444	9.939982	9.751462	10.248538	10.060018	10.308555	34
27	9.691668	9.939911	9.751757	10.248243	10.060089	10.308332	33
28	9.691892	9.939840	9.752052	10.247948	10.060160	10.308108	32
29	9.692115	9.939768	9.752347	10.247653	10.060232	10.307884	31
30	9.692339	9.939697	9.752642	10.247358	10.060303	10.307661	30
	Sine.	Tang.			Secant.		Min.

60 Degrees.

60 Degrees.



# Tangents and Secants.

58

30 Degrees.

Min.	Sine.	Tang.	Secant.	
30	9.705469	9.935320	9.770148	10.229851
31	9.705683	9.935246	9.770437	10.229563
32	9.705897	9.935171	9.770726	10.229274
33	9.706112	9.935097	9.771015	10.228985
34	9.706326	9.935022	9.771303	10.228697
35	9.706539	9.934948	9.771592	10.228408
36	9.706753	9.934873	9.771880	10.228120
37	9.706967	9.934798	9.772168	10.227832
38	9.707180	9.934723	9.772457	10.227543
39	9.707393	9.934649	9.772745	10.227255
40	9.707606	9.934574	9.773033	10.226967
41	9.707819	9.934499	9.773321	10.226679
42	9.708032	9.934424	9.773608	10.226392
43	9.708245	9.934349	9.773896	10.226104
44	9.708457	9.934274	9.774184	10.225816
45	9.708670	9.934199	9.774471	10.225529
46	9.708882	9.934123	9.774759	10.225241
47	9.709094	9.934048	9.775046	10.224954
48	9.709306	9.933973	9.775333	10.224667
49	9.709518	9.933898	9.775621	10.224379
50	9.709730	9.933822	9.775908	10.224092
51	9.709941	9.933747	9.776195	10.223805
52	9.710153	9.933671	9.776482	10.223518
53	9.710364	9.933596	9.776768	10.223231
54	9.710575	9.933520	9.777055	10.222945
55	9.710786	9.933444	9.777342	10.222658
56	9.710997	9.933369	9.777628	10.222372
57	9.711208	9.933293	9.777915	10.222085
58	9.711419	9.933217	9.778201	10.221799
59	9.711629	9.933141	9.778487	10.221512
60	9.711839	9.933066	9.778774	10.221226
	Sine.			Secant.

59 Degrees.

Q

Min.

# A Table of Artificial Sines.

31 Degrees.

Min.	Sine.		Tang.		Secant.	
0	9.711839	9.933066	9.778774	10.221226	10.066934	10.288161
1	9.712049	9.932990	9.779060	10.220940	10.067010	10.287950
2	9.712260	9.932914	9.779346	10.220654	10.067086	10.287740
3	9.712469	9.932838	9.779632	10.220368	10.067162	10.287530
4	9.712679	9.932762	9.779918	10.220082	10.067268	10.287321
5	9.712889	9.932685	9.780203	10.219797	10.067315	10.287111
6	9.713098	9.932609	9.780489	10.219511	10.067391	10.286902
7	9.713308	9.932533	9.780775	10.219225	10.067467	10.286692
8	9.713517	9.932457	9.781060	10.218940	10.067543	10.286483
9	9.713726	9.932380	9.781346	10.218654	10.067620	10.286274
10	9.713935	9.932304	9.781631	10.218369	10.067696	10.286065
11	9.714144	9.932228	9.781916	10.218084	10.067772	10.285856
12	9.714352	9.932151	9.782201	10.217799	10.067849	10.285648
13	9.714561	9.932075	9.782486	10.217514	10.067925	10.285439
14	9.714769	9.931998	9.782771	10.217229	10.068002	10.285231
15	9.714978	9.931921	9.783056	10.216945	10.068079	10.285022
16	9.715186	9.931845	9.783341	10.216660	10.068155	10.284814
17	9.715394	9.931768	9.783626	10.216374	10.068232	10.284606
18	9.715601	9.931691	9.783910	10.216090	10.068309	10.284398
19	9.715809	9.931614	9.784195	10.215805	10.068386	10.284191
20	9.716017	9.931537	9.784479	10.215521	10.068463	10.283983
21	9.716224	9.931460	9.784794	10.215236	10.068539	10.283776
22	9.716432	9.931383	9.785048	10.214952	10.068616	10.283568
23	9.716630	9.931306	9.785332	10.214668	10.068693	10.283361
24	9.716846	9.931229	9.785616	10.214384	10.068771	10.283154
25	9.717053	9.931152	9.785900	10.214100	10.068848	10.282947
26	9.717259	9.931075	9.786184	10.213816	10.068925	10.282741
27	9.717466	9.930998	9.786468	10.213532	10.069002	10.282534
28	9.717672	9.930920	9.786752	10.213248	10.069079	10.282327
29	9.717879	9.930843	9.787036	10.212964	10.069157	10.282121
30	9.718085	9.930766	9.787319	10.212681	10.069234	10.281915
	Sine.		Tang.		Secant.	Min.

58 Degrees.

# Tangents and Secants.

27 Degrees.

Min.	Sine.	Tang.	Secant.	
30	9.664406	9.947929	9.716477	10.283523 10.052071 10.335594 30
31	9.664648	9.947863	9.716785	10.283215 10.052137 10.335352 29
32	9.664891	9.947797	9.717093	10.282907 10.052203 10.335109 28
33	9.665133	9.947731	9.717401	10.282599 10.052269 10.334867 27
34	9.665375	9.947665	9.717709	10.282291 10.052334 10.334625 26
35	9.665617	9.947599	9.718017	10.281983 10.052400 10.334383 25
36	9.665859	9.947533	9.718325	10.281675 10.052466 10.334141 24
37	9.666100	9.947467	9.718633	10.281367 10.052533 10.333900 23
38	9.666341	9.947401	9.718940	10.281060 10.052599 10.333658 22
39	9.666583	9.947335	9.719248	10.280752 10.052665 10.333417 21
40	9.666824	9.947269	9.719555	10.280445 10.052731 10.333176 20
41	9.667065	9.947203	9.719862	10.280138 10.052797 10.332935 19
42	9.667305	9.947136	9.720169	10.279831 10.052864 10.332695 18
43	9.667546	9.947070	9.720476	10.279524 10.052930 10.332454 17
44	9.667786	9.947004	9.720783	10.279217 10.052996 10.332214 16
45	9.668026	9.946937	9.721089	10.278911 10.053062 10.331973 15
46	9.668266	9.946871	9.721396	10.278604 10.053129 10.331733 14
47	9.668506	9.946804	9.721702	10.278298 10.053196 10.331494 13
48	9.668746	9.946738	9.722008	10.277991 10.053262 10.331254 12
49	9.668986	9.946671	9.722315	10.277685 10.053329 10.331014 11
50	9.669225	9.946604	9.722621	10.277379 10.053396 10.330775 10
51	9.669464	9.946538	9.722927	10.277073 10.053462 10.330536 9
52	9.669703	9.946471	9.723232	10.276768 10.053529 10.330297 8
53	9.669942	9.946404	9.723538	10.276462 10.053596 10.330058 7
54	9.670181	9.946337	9.723844	10.276156 10.053663 10.329819 6
55	9.670419	9.946270	9.724149	10.275851 10.053730 10.329581 5
56	9.670658	9.946203	9.724454	10.275546 10.053797 10.329342 4
57	9.670896	9.946136	9.724759	10.275240 10.053864 10.329104 3
58	9.671134	9.946069	9.725065	10.274935 10.053931 10.328866 2
59	9.671372	9.946002	9.725369	10.274630 10.053998 10.328628 1
60	9.671609	9.945935	9.725674	10.274326 10.054065 10.328391 0
	Sine.	Tang.	Secant.	

62 Degrees.

# A Table of Artificial Sines,

28 Degrees.

Min.	Sine.	Tang.	Secant.	
0	9.671609	9.945935	9.725674	10.274326
1	9.671847	9.945868	9.725979	10.274021
2	9.672084	9.945800	9.726284	10.273716
3	9.672321	9.945733	9.726588	10.273412
4	9.672558	9.945666	9.726892	10.273107
5	9.672795	9.945598	9.727197	10.272803
6	9.673032	9.945531	9.727501	10.272499
7	9.673268	9.945464	9.727805	10.272195
8	9.673505	9.945396	9.728109	10.271891
9	9.673741	9.945328	9.728412	10.271588
10	9.673977	9.945261	9.728716	10.271284
11	9.674213	9.945193	9.729020	10.270980
12	9.674448	9.945125	9.729323	10.270677
13	9.674684	9.945058	9.729626	10.270374
14	9.674919	9.944990	9.729929	10.270070
15	9.675155	9.944922	9.730232	10.269767
16	9.675390	9.944854	9.730535	10.269463
17	9.675624	9.944786	9.730838	10.269162
18	9.675859	9.944718	9.731141	10.268859
19	9.676094	9.944650	9.731444	10.268556
20	9.676328	9.944582	9.731746	10.268254
21	9.676562	9.944514	9.732048	10.267952
22	9.676796	9.944446	9.732351	10.267649
23	9.677030	9.944377	9.732653	10.267347
24	9.677264	9.944309	9.732955	10.267045
25	9.677497	9.944241	9.733257	10.266743
26	9.677731	9.944172	9.733558	10.266442
27	9.677964	9.944104	9.733860	10.266140
28	9.678197	9.944036	9.734162	10.265838
29	9.678430	9.943967	9.734463	10.265537
30	9.678663	9.943898	9.734764	10.265236
	Sine.	Tang.	Secant.	

61 Degrees.

Min.



# Tangents and Secants.

1 29 Degrees.

51

Min.	Sine.	Tang.	Secant.	
30	9.692339	9.939697	9.752642	10.247358
31	9.692562	9.939625	9.752937	10.247063
32	9.692785	9.939554	9.753231	10.246769
33	9.693009	9.939482	9.753526	10.246474
34	9.693231	9.939410	9.753820	10.246180
35	9.693453	9.939339	9.754115	10.245885
36	9.693676	9.939267	9.754409	10.245591
37	9.693898	9.939190	9.754703	10.245297
38	9.694120	9.939123	9.754997	10.245003
39	9.694342	9.939051	9.755291	10.244709
40	9.694564	9.938980	9.755585	10.244415
41	9.694786	9.938908	9.755878	10.244122
42	9.695007	9.938836	9.756172	10.243828
43	9.695229	9.938763	9.756465	10.243535
44	9.695450	9.938691	9.756759	10.243241
45	9.695671	9.938619	9.757052	10.242948
46	9.695892	9.938547	9.757345	10.242655
47	9.696113	9.938475	9.757638	10.242362
48	9.696334	9.938402	9.757931	10.242069
49	9.696554	9.938330	9.758224	10.241776
50	9.696774	9.938258	9.758517	10.241483
51	9.696995	9.938185	9.758810	10.241190
52	9.697215	9.938113	9.759012	10.240898
53	9.697435	9.938040	9.759395	10.240605
54	9.697654	9.937967	9.759687	10.240312
55	9.697874	9.937895	9.759979	10.240021
56	9.698094	9.937822	9.760272	10.239728
57	9.698313	9.937749	9.760564	10.239436
58	9.698532	9.937676	9.760856	10.239144
59	9.698751	9.937603	9.761148	10.238852
60	9.698970	9.937531	9.761439	10.238561
	Sine.	Tang.	Secant.	

60 Degrees.

Min.

# A Table of Artificial Sines,

30 Degrees.

Min.	Sine.	Tang.	Secant.	Min.		
0	9.698970	9.937531	9.761439	10.238561	10.062469	10.301030
1	9.699189	9.937458	9.761731	10.238269	10.062543	10.300811
2	9.699407	9.937385	9.762023	10.237977	10.062615	10.300593
3	9.699626	9.937312	9.762314	10.237686	10.062688	10.300374
4	9.699844	9.937238	9.762606	10.237394	10.062761	10.300156
5	9.700062	9.937165	9.762897	10.237103	10.062835	10.299938
6	9.700280	9.937092	9.763188	10.236812	10.062908	10.299720
7	9.700498	9.937019	9.763479	10.236521	10.062981	10.299502
8	9.700716	9.936946	9.763770	10.236230	10.063054	10.299284
9	9.700933	9.936872	9.764061	10.235939	10.063128	10.299067
10	9.701151	9.936799	9.764352	10.235648	10.063201	10.298849
11	9.701368	9.936725	9.764643	10.235357	10.063275	10.298632
12	9.701585	9.936652	9.764933	10.235067	10.063348	10.298415
13	9.701802	9.936578	9.765224	10.234776	10.063422	10.298198
14	9.702019	9.936505	9.765514	10.234486	10.063495	10.297981
15	9.702236	9.936431	9.765805	10.234195	10.063569	10.297764
16	9.702452	9.936357	9.766095	10.233905	10.063641	10.297548
17	9.702669	9.936284	9.766385	10.233615	10.063716	10.297334
18	9.702885	9.936210	9.766675	10.233325	10.063790	10.297115
19	9.703101	9.936136	9.766965	10.233035	10.063864	10.296899
20	9.703317	9.936062	9.767255	10.232745	10.063938	10.296683
21	9.703533	9.935988	9.767545	10.232455	10.064012	10.296467
22	9.703749	9.935914	9.767834	10.232166	10.064086	10.296251
23	9.703964	9.935840	9.768124	10.231876	10.064160	10.296036
24	9.704170	9.935766	9.768413	10.231586	10.064234	10.295820
25	9.704395	9.935692	9.768703	10.231297	10.064308	10.295605
26	9.704610	9.935618	9.768992	10.231008	10.064382	10.295390
27	9.704825	9.935543	9.769281	10.230719	10.064457	10.295175
28	9.705040	9.935469	9.769570	10.230429	10.064531	10.294960
29	9.705254	9.935395	9.769860	10.230140	10.064605	10.294746
30	9.705469	9.935320	9.770148	10.229851	10.064680	10.294531
	Sine.		Tang.		Secant.	Min.

59 Degrees.

59 Degrees.

# Tangents and Secants.

31 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
30	9.718085	9.930766	9.787319	10.212681	10.069234	10.281915	30
31	9.718291	9.930688	9.787603	10.212397	10.069312	10.281709	29
32	9.718497	9.930611	9.787886	10.212114	10.069389	10.281503	28
33	9.718703	9.930533	9.788170	10.211830	10.069467	10.281297	27
34	9.718909	9.930456	9.788453	10.211547	10.069544	10.281091	26
35	9.719114	9.930378	9.788736	10.211264	10.069622	10.280886	25
36	9.719320	9.930300	9.789019	10.210981	10.069700	10.280680	24
37	9.719525	9.930223	9.789302	10.210698	10.069777	10.280475	23
38	9.719730	9.930145	9.789585	10.210415	10.069855	10.280270	22
39	9.719935	9.930067	9.789868	10.210132	10.069933	10.280065	21
40	9.720140	9.929989	9.790151	10.209849	10.070011	10.279860	20
41	9.720345	9.929911	9.790433	10.209566	10.070089	10.279655	19
42	9.720549	9.929833	9.790716	10.209284	10.070167	10.279451	18
43	9.720754	9.929755	9.790999	10.209001	10.070245	10.279246	17
44	9.720958	9.929677	9.791281	10.208719	10.070323	10.279042	16
45	9.721162	9.929599	9.791563	10.208436	10.070401	10.278838	15
46	9.721366	9.929521	9.791846	10.208154	10.070479	10.278634	14
47	9.721570	9.929442	9.792128	10.207872	10.070558	10.278430	13
48	9.721774	9.929364	9.792410	10.207590	10.070636	10.278226	12
49	9.721978	9.929286	9.792692	10.207308	10.070714	10.278022	11
50	9.722181	9.929207	9.792974	10.207026	10.070793	10.277819	10
51	9.722385	9.929129	9.793256	10.206744	10.070871	10.277615	9
52	9.722588	9.929050	9.793538	10.206462	10.070950	10.277412	8
53	9.722791	9.928972	9.793819	10.206180	10.071028	10.277209	7
54	9.722994	9.928893	9.794101	10.205899	10.071107	10.277006	6
55	9.723197	9.928814	9.794383	10.205617	10.071185	10.276805	5
56	9.723400	9.928736	9.794664	10.205336	10.071264	10.276603	4
57	9.723603	9.928657	9.794945	10.205054	10.071343	10.276397	3
58	9.723805	9.928578	9.795227	10.204773	10.071422	10.276195	2
59	9.724007	9.928499	9.795508	10.204492	10.071501	10.275992	1
60	9.724210	9.928420	9.795789	10.204211	10.071579	10.275790	0
	Sine.		Tang.		Secant.		

58 Degrees.

# A Table of Artificial Sines,

32 Degrees.

Min.	Sine.		Tang.		Secant.	
0	9.724210	9.928420	9.795289	10.204211	10.071579	10.275790
1	9.724412	9.928341	9.796070	10.203930	10.071658	10.275588
2	9.724614	9.928262	9.796351	10.203649	10.071737	10.275386
3	9.724816	9.928183	9.796632	10.203368	10.071817	10.275184
4	9.725017	9.928104	9.796913	10.203087	10.071896	10.274983
5	9.725219	9.928025	9.797194	10.202806	10.071975	10.274781
6	9.725420	9.927946	9.797474	10.202525	10.072054	10.274580
7	9.725622	9.927867	9.797755	10.202245	10.072133	10.274378
8	9.725823	9.927787	9.798036	10.201964	10.072213	10.274177
9	9.726024	9.927704	9.798316	10.201684	10.072292	10.273976
10	9.726225	9.927628	9.798596	10.201404	10.072371	10.273775
11	9.726426	9.927549	9.798877	10.201123	10.072451	10.273574
12	9.726626	9.927469	9.799157	10.200843	10.072530	10.273374
13	9.726827	9.927390	9.799437	10.200563	10.072610	10.273173
14	9.727027	9.927310	9.799717	10.200283	10.072690	10.272973
15	9.727228	9.927231	9.799997	10.200003	10.072769	10.272772
16	9.727428	9.927151	9.800277	10.199723	10.072849	10.272572
17	9.727628	9.927071	9.800557	10.199443	10.072929	10.272372
18	9.727828	9.926991	9.800836	10.199163	10.073009	10.272172
19	9.728027	9.926911	9.801116	10.198884	10.073089	10.271972
20	9.728227	9.926831	9.801396	10.198604	10.073169	10.271773
21	9.728427	9.926751	9.801675	10.198325	10.073249	10.271573
22	9.728626	9.926671	9.801955	10.198045	10.073329	10.271374
23	9.728825	9.926591	9.802234	10.197766	10.073409	10.271175
24	9.729024	9.926511	9.802513	10.197487	10.073489	10.270976
25	9.729223	9.926431	9.802792	10.197207	10.073569	10.270777
26	9.729422	9.926351	9.803072	10.196928	10.073649	10.270578
27	9.729621	9.926270	9.803351	10.196649	10.073730	10.270379
28	9.729820	9.926190	9.803630	10.196370	10.073810	10.270180
29	9.730018	9.926110	9.803908	10.196091	10.073891	10.269982
30	9.730216	9.926029	9.804187	10.195813	10.073971	10.269783
	Sine.		Tang.		Secant.	Min.

57 Degrees.



# Tangents and Secants.

32 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.730216	9.926029	9.804187	10.195813	10.073971	10.269783	30
31	9.730415	9.925949	9.804466	10.195534	10.074051	10.269585	29
32	9.730613	9.925868	9.804745	10.195255	10.074132	10.269387	18
33	9.730811	9.925787	9.805023	10.194977	10.074212	10.269189	17
34	9.731009	9.925707	9.805302	10.194698	10.074293	10.268991	16
35	9.731206	9.925626	9.805580	10.194420	10.074374	10.268794	15
36	9.731404	9.925545	9.805859	10.194141	10.074455	10.268596	24
37	9.731601	9.925465	9.806137	10.193863	10.074535	10.268398	23
38	9.731799	9.925384	9.806415	10.193585	10.074616	10.268201	22
39	9.731996	9.925303	9.806693	10.193307	10.074697	10.268004	21
40	9.732193	9.925222	9.806971	10.193029	10.074778	10.267807	20
41	9.732390	9.925141	9.807249	10.192751	10.074859	10.267601	19
42	9.732587	9.925051	9.807527	10.192473	10.074940	10.267413	18
43	9.732784	9.924979	9.807805	10.192195	10.075021	10.267216	17
44	9.732980	9.924897	9.808083	10.191917	10.075103	10.267020	16
45	9.733177	9.924816	9.808361	10.191639	10.075184	10.266823	15
46	9.733373	9.924735	9.808638	0.191362	10.075265	10.266627	14
47	9.733569	9.924653	9.808916	10.191084	10.075346	10.266431	13
48	9.733765	9.924572	9.809193	10.190807	10.075428	10.266235	12
49	9.733961	9.924491	9.809471	10.190529	10.075509	10.266039	11
50	9.734157	9.924409	9.809748	10.190252	10.075591	10.265843	10
51	9.734353	9.924328	9.810025	0.189975	10.075672	10.265647	9
52	9.734548	9.924246	9.810302	10.189697	10.075754	10.265451	8
53	9.734744	9.924164	9.810580	10.189420	10.075836	10.265256	7
54	9.734939	9.924083	9.810857	10.189143	10.075917	10.265061	6
55	9.735134	9.924011	9.811134	10.188866	10.075999	10.264865	5
56	9.735330	9.923919	9.811410	10.188589	10.076080	10.264670	4
57	9.735525	9.923837	9.811687	10.188313	10.076163	10.264475	3
58	9.735719	9.923755	9.811964	10.188036	10.076245	10.264280	2
59	9.735914	9.923673	9.812241	10.187759	10.076327	10.264086	1
60	9.736109	9.923591	9.812517	10.187483	10.076409	10.263891	0
	Sine.		Tang.		Secant.		Min.

57 Degrees.

# A Table of Artificial Sines,

33 Degrees.

Min.	Sine.		Tang.		Secant.	
0	9.736103	9.923591	9.812517	10.187483	10.076409	10.263891 60
1	9.736303	9.923509	9.812794	10.187206	10.076491	10.263697 59
2	9.736498	9.923427	9.813070	10.186930	10.076573	10.263502 58
3	9.736692	9.923345	9.813347	10.186653	10.076655	10.263308 57
4	9.736886	9.923263	9.813623	10.186377	10.076737	10.263114 56
5	9.737080	9.923180	9.813899	10.186101	10.076819	10.262920 55
6	9.737274	9.923098	9.814175	10.185824	10.076902	10.262726 54
7	9.737467	9.923016	9.814452	10.185548	10.076984	10.262532 53
8	9.737661	9.922933	9.814728	10.185272	10.077057	10.262339 52
9	9.737855	9.922851	9.815004	10.184996	10.077149	10.262145 51
10	9.738048	9.922768	9.815279	10.184720	10.077232	10.261952 50
11	9.738241	9.922686	9.815555	10.184445	10.077314	10.261759 49
12	9.738434	9.922603	9.815831	10.184169	10.077397	10.261566 48
13	9.738627	9.922520	9.816107	10.183893	10.077479	10.261373 47
14	9.738820	9.922438	9.816382	10.183618	10.077562	10.261180 46
15	9.739013	9.922355	9.816658	10.183342	10.077645	10.260987 45
16	9.739205	9.922272	9.816933	10.183066	10.077728	10.260794 44
17	9.739398	9.922189	9.817209	10.182791	10.077811	10.260602 43
18	9.739590	9.922106	9.817484	10.182516	10.077894	10.260410 42
19	9.739783	9.922023	9.817759	10.182240	10.077977	10.260217 41
20	9.739975	9.921940	9.818035	10.181965	10.078060	10.260025 40
21	9.740167	9.921857	9.818310	10.181690	10.078143	10.259833 39
22	9.740359	9.921774	9.818585	10.181415	10.078226	10.259641 38
23	9.740550	9.921691	9.818860	10.181140	10.078309	10.259449 37
24	9.740742	9.921607	9.819131	10.180865	10.078393	10.259258 36
25	9.740934	9.921524	9.819410	10.180590	10.078476	10.259066 35
26	9.741125	9.921441	9.819684	10.180316	10.078559	10.258875 34
27	9.741316	9.921357	9.819959	10.180041	10.078643	10.258684 33
28	9.741507	9.921274	9.810234	10.179766	10.078726	10.248492 32
29	9.741699	9.921190	9.810508	10.179492	10.078810	10.258301 31
30	9.741889	9.921107	9.810783	10.179217	10.078893	10.258110 30
	Sine.		Tang.		Secant.	Min.

56 Degrees.

# Tangents and Secants.

33 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
30	9.741889	9.921107	9.820783	10.179217	10.078893	10.258110	30
31	9.742080	9.921023	9.821057	10.178943	10.078977	10.257920	29
32	9.742271	9.920939	9.821332	10.178668	10.079061	10.257729	28
33	9.742462	9.920855	9.821606	10.178394	10.079144	10.257538	27
34	9.742652	9.920772	9.821880	10.178120	10.079228	10.257348	26
35	9.742842	9.920688	9.822154	10.177845	10.079312	10.257158	25
36	9.743032	9.920604	9.822429	10.177571	10.079396	10.256967	24
37	9.743222	9.920520	9.822703	10.177297	10.079480	10.256777	23
38	9.743412	9.920436	9.822977	10.177023	10.079564	10.256587	22
39	9.743602	9.920352	9.823250	10.176749	10.079648	10.256398	21
40	9.743792	9.920268	9.823524	10.176476	10.079732	10.256208	20
41	9.743982	9.920184	9.823798	10.176202	10.079816	10.256018	19
42	9.744171	9.920099	9.824072	10.175928	10.079901	10.255829	18
43	9.744361	9.920015	9.824345	10.175654	10.079985	10.255639	17
44	9.744550	9.919931	9.824619	10.175381	10.080069	10.255440	16
45	9.744739	9.919846	9.824893	10.175107	10.080154	10.255261	15
46	9.744928	9.919762	9.825166	10.174834	10.080238	10.255072	14
47	9.745117	9.919677	9.825439	10.174561	10.080322	10.254883	13
48	9.745306	9.919593	9.825713	10.174287	10.080407	10.254694	12
49	9.745494	9.919508	9.825986	10.174014	10.080492	10.254506	11
50	9.745683	9.919424	9.826259	10.173741	10.080576	10.254317	10
51	9.745871	9.919339	9.826532	10.173468	10.080661	10.254129	9
52	9.746059	9.919254	9.826805	10.173195	10.080746	10.253940	8
53	9.746248	9.919169	9.827078	10.172922	10.080831	10.253752	7
54	9.746436	9.919084	9.827351	10.172649	10.080915	10.253564	6
55	9.746624	9.919000	9.827624	10.172376	10.081000	10.253376	5
56	9.746811	9.918915	9.827897	10.172103	10.081085	10.253188	4
57	9.746999	9.918830	9.828170	10.171830	10.081170	10.253001	3
58	9.747187	9.918744	9.828442	10.171558	10.081255	10.252813	2
59	9.747374	9.918659	9.828715	10.171285	10.081341	10.252626	1
60	9.747562	9.918574	9.828987	10.171013	10.081426	10.252438	0
	Sine.		Tang.		Secant.		Min.

56 Degrees.

# A Table of Artificial Sines,

34 Degrees.

Min.	Sine.		Tang.		Secant.		
0	9.747562	9.918574	9.828987	10.171013	10.081426	10.252438	60
1	9.747749	9.918489	9.829260	10.170740	10.081511	10.252251	59
2	9.747936	9.918404	9.829532	10.170468	10.081596	10.252064	58
3	9.748123	9.918318	9.829805	10.170195	10.081682	10.251877	57
4	9.748310	9.918233	9.830077	10.169923	10.081767	10.251690	56
5	9.748497	9.918147	9.830349	10.169651	10.081852	10.251503	55
6	9.748683	9.918062	9.830621	10.169379	10.081938	10.251317	54
7	9.748870	9.917976	9.830893	10.169107	10.082024	10.251130	53
8	9.749056	9.917891	9.831165	10.168835	10.082109	10.250944	52
9	9.749242	9.917805	9.831437	10.168563	10.082195	10.250757	51
10	9.749429	9.917719	9.831709	10.168291	10.082281	10.250571	50
11	9.749615	9.917634	9.831981	10.168019	10.082366	10.250385	49
12	9.749801	9.917548	9.832253	10.167747	10.082452	10.250199	48
13	9.749987	9.917462	9.832525	10.167475	10.082538	10.250013	47
14	9.750172	9.917376	9.832796	10.167204	10.082624	10.249828	46
15	9.750358	9.917290	9.833068	10.166932	10.082710	10.249642	45
16	9.750543	9.917204	9.833339	10.166661	10.082796	10.249457	44
17	9.750729	9.917118	9.833611	10.166389	10.082882	10.249271	43
18	9.750914	9.917032	9.833882	10.166118	10.082968	10.249086	42
19	9.751099	9.916945	9.834154	10.165846	10.083054	10.248901	41
20	9.751284	9.916859	9.834425	10.165575	10.083141	10.248716	40
21	9.751469	9.916773	9.834696	10.165304	10.083227	10.248531	39
22	9.751654	9.916687	9.834967	10.165033	10.083313	10.248346	38
23	9.751838	9.916600	9.835238	10.164762	10.083400	10.248161	37
24	9.752023	9.916514	9.835509	10.164491	10.083486	10.247977	36
25	9.752207	9.916427	9.835780	10.164220	10.083573	10.247792	35
26	9.752392	9.916341	9.836051	10.163949	10.083659	10.247608	34
27	9.752576	9.916254	9.836322	10.163678	10.083746	10.247424	33
28	9.752760	9.916167	9.836593	10.163407	10.083833	10.247240	32
29	9.752944	9.916080	9.836864	10.163136	10.083919	10.247056	31
30	9.753128	9.915994	9.837134	10.162866	10.084006	10.246872	30
	Sine.		Tang.		Secant.		Min.

55 Degrees.



# Tangents and Secants.

62

34 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.753128	9.915994	9.837134	10.162866	10.084006	10.246872	30
31	9.753312	9.915907	9.837405	10.162595	10.084093	10.246688	29
32	9.753495	9.915820	9.837675	10.162324	10.084180	10.246505	28
33	9.753679	9.915733	9.837946	10.162054	10.084267	10.246321	27
34	9.753862	9.915646	9.838216	10.161784	10.084354	10.246138	26
35	9.754046	9.915559	9.838487	10.161513	10.084441	10.245954	25
36	9.754229	9.915472	9.838757	10.161243	10.084528	10.245771	24
37	9.754412	9.915385	9.839027	10.160973	10.084615	10.245588	23
38	9.754595	9.915297	9.839297	10.160702	10.084703	10.245405	22
39	9.754778	9.915210	9.839568	10.160432	10.084790	10.245222	21
40	9.754960	9.915123	9.839838	10.160162	10.084877	10.245040	20
41	9.755143	9.915035	9.840108	10.159892	10.084965	10.244857	19
42	9.755326	9.914948	9.840378	10.159622	10.085052	10.244674	18
43	9.755508	9.914860	9.840647	10.159352	10.085140	10.244492	17
44	9.755690	9.914773	9.840917	10.159083	10.085227	10.244310	16
45	9.755872	9.914685	9.841187	10.158813	10.085315	10.244128	15
46	9.756054	9.914598	9.841457	10.158543	10.085402	10.243940	14
47	9.756236	9.914510	9.841726	10.158273	10.085490	10.243764	13
48	9.756418	9.914422	9.841996	10.158004	10.085578	10.243582	12
49	9.756600	9.914334	9.842266	10.157734	10.085666	10.243400	11
50	9.756781	9.914246	9.842535	10.157465	10.085754	10.243218	10
51	9.756963	9.914158	9.842805	10.157195	10.085842	10.243037	9
52	9.757144	9.914070	9.843074	10.156926	10.085930	10.242856	8
53	9.757326	9.913982	9.843343	10.156657	10.086018	10.242674	7
54	9.757507	9.913894	9.843612	10.156388	10.086106	10.242493	6
55	9.757688	9.913806	9.843882	10.156118	10.086194	10.242312	5
56	9.757869	9.913718	9.844151	10.155849	10.086282	10.242131	4
57	9.758049	9.913630	9.844420	10.155580	10.086370	10.241950	3
58	9.758230	9.913541	9.844689	10.155311	10.086459	10.241770	2
59	9.758411	9.913453	9.844958	10.155042	10.086547	10.241589	1
60	9.758591	9.913364	9.845227	10.154773	10.086635	10.241409	0
	Sine.		Tang.		Secant.		

61 Degrees.

K

Min.

# A Table of Artificial Sines,

35 Degrees.

Min.	Sine.		Tang.		Secant.		
0	9.758591	9.913364	9.845227	10.154773	10.086653	10.241409	60
1	9.758772	9.913276	9.845496	10.154504	10.086724	10.241228	59
2	9.758952	9.913187	9.845764	10.154236	10.086812	10.241048	58
3	9.759132	9.913099	9.846033	10.153967	10.086901	10.240868	57
4	9.759312	9.913010	9.846302	10.153698	10.086990	10.240688	56
5	9.759492	9.912921	9.846570	10.153429	10.087078	10.240508	55
6	9.759672	9.912833	9.846839	10.153161	10.087167	10.240328	54
7	9.759851	9.912744	9.847107	10.152892	10.087256	10.240148	53
8	9.760031	9.912655	9.847376	10.152624	10.087345	10.239969	52
9	9.760211	9.912566	9.847644	10.152356	10.087434	10.239789	51
10	9.760390	9.912477	9.847913	10.152087	10.087523	10.239610	50
11	9.760569	9.912388	9.848181	10.151819	10.087612	10.239431	49
12	9.760748	9.912299	9.848449	10.151551	10.087701	10.239252	48
13	9.760927	9.912210	9.848717	10.151283	10.087790	10.239073	47
14	9.761106	9.912121	9.848985	10.151014	10.087879	10.238894	46
15	9.761285	9.912031	9.849254	10.150746	10.087968	10.238715	45
16	9.761464	9.911942	9.849522	10.150478	10.088058	10.238536	44
17	9.761642	9.911853	9.849790	10.150210	10.088147	10.238358	43
18	9.761821	9.911763	9.840057	10.149942	10.088237	10.238179	42
19	9.761999	9.911674	9.850325	10.149675	10.088326	10.238001	41
20	9.762177	9.911584	9.850593	10.149407	10.088416	10.237822	40
21	9.762356	9.911495	9.850861	10.149139	10.088505	10.237644	39
22	9.762534	9.911405	9.851128	10.148871	10.088595	10.237466	38
23	9.762712	9.911315	9.851396	10.148604	10.088684	10.237288	37
24	9.762889	9.911226	9.851664	10.148336	10.088774	10.237111	36
25	9.763067	9.911136	9.851931	10.148069	10.088864	10.236933	35
26	9.763245	9.911046	9.852199	10.147801	10.088954	10.236755	34
27	9.763422	9.910956	9.852466	10.147534	10.089044	10.236578	33
28	9.763600	9.910866	9.852733	10.147266	10.089134	10.236400	32
29	9.763777	9.910776	9.853001	10.146999	10.089224	10.236223	31
30	9.763954	9.910686	9.853268	10.146732	10.089314	10.236046	30
	Sine.		Tang.		Secant.		Min.

54 Degrees.

# Tangents and Secants.

63

35 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.763954	9.910686	9.853268	10.146732	10.089314	10.236046	30
31	9.764131	9.910596	9.853535	10.146465	10.089404	10.235869	29
32	9.764308	9.910506	9.853802	10.146198	10.089494	10.235692	28
33	9.764485	9.910415	9.854069	10.145931	10.089585	10.235515	27
34	9.764662	9.910325	9.854336	10.145664	10.089675	10.235338	26
35	9.764838	9.910235	9.854603	10.145397	10.089765	10.235162	25
36	9.765015	9.910144	9.854870	10.145130	10.089856	10.234985	24
37	9.765191	9.910054	9.855137	10.144863	10.089946	10.234809	23
38	9.765367	9.909963	9.855404	10.144596	10.090037	10.234633	22
39	9.765544	9.909873	9.855671	10.144329	10.090127	10.234456	21
40	9.765720	9.909782	9.855938	10.144062	10.090218	10.234280	20
41	9.765896	9.909691	9.856204	10.143796	10.090308	10.234104	19
42	9.766071	9.909601	9.856471	10.143529	10.090399	10.233928	18
43	9.766247	9.909510	9.856737	10.143263	10.090490	10.233753	17
44	9.766423	9.909419	9.857004	10.142996	10.090581	10.233577	16
45	9.766598	9.909328	9.857270	10.142730	10.090672	10.233401	15
46	9.766774	9.909237	9.857537	10.142463	10.090763	10.233226	14
47	9.766949	9.909146	9.857803	10.142197	10.090854	10.233051	13
48	9.767124	9.909055	9.858069	10.141931	10.090945	10.232876	12
49	9.767290	9.908964	9.858336	10.141664	10.091036	10.232700	11
50	9.767475	9.908873	9.858602	10.141398	10.091127	10.232525	10
51	9.767649	9.908781	9.858868	10.141132	10.091219	10.232351	9
52	9.767824	9.908691	9.859134	10.140866	10.091310	10.232176	8
53	9.767999	9.908599	9.859400	10.140600	10.091401	10.232001	7
54	9.768173	9.908507	9.859666	10.140334	10.091493	10.231826	6
55	9.768348	9.908416	9.859932	10.140068	10.091584	10.231652	5
56	9.768522	9.908324	9.860198	10.139802	10.091676	10.231478	4
57	9.768697	9.908233	9.860464	10.139536	10.091767	10.231303	3
58	9.768871	9.908141	9.860730	10.139270	10.091855	10.231129	2
59	9.769045	9.908049	9.860995	10.139005	10.091951	10.230955	1
60	9.769219	9.907958	9.861261	10.138739	10.092042	10.230781	0
	Sine.		Tang.		Secant.		Min.

58 Degrees.

# A Table of Artificial Sines,

36 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
0	9.769219	9.907958	9.861261	10.138739	10.092042	10.230781	60
1	9.769392	9.907866	9.861527	10.138473	10.092134	10.230607	59
2	9.769566	9.907774	9.861792	10.138208	10.092226	10.230434	58
3	9.769740	9.907682	9.862058	10.137942	10.092318	10.230260	57
4	9.769913	9.907590	9.862323	10.137677	10.092410	10.230087	56
5	9.770087	9.907498	9.862589	10.137411	10.092502	10.229913	55
6	9.770260	9.907406	9.862854	10.137146	10.092594	10.229740	54
7	9.770433	9.907314	9.863119	10.136880	10.092686	10.229567	53
8	9.770606	9.907221	9.863385	10.136615	10.092778	10.229394	52
9	9.770779	9.907129	9.863650	10.136350	10.092871	10.229220	51
10	9.770952	9.907037	9.863915	10.136085	10.092963	10.229048	50
11	9.771125	9.906945	9.864180	10.135820	10.093055	10.228875	49
12	9.771298	9.906852	9.864445	10.135555	10.093148	10.228702	48
13	9.771470	9.906760	9.864710	10.135289	10.093240	10.228520	47
14	9.771642	9.906667	9.864975	10.135024	10.093333	10.228357	46
15	9.771815	9.906574	9.865240	10.134760	10.093425	10.228185	45
16	9.771987	9.906482	9.865505	10.134495	10.093518	10.228013	44
17	9.772159	9.906389	9.865770	10.134230	10.093611	10.227841	43
18	9.772331	9.906296	9.866035	10.133965	10.093704	10.227669	42
19	9.772503	9.906204	9.866300	10.133700	10.093796	10.227497	41
20	9.772675	9.906111	9.866564	10.133436	10.093889	10.227325	40
21	9.772847	9.906018	9.866829	10.133171	10.093982	10.227153	39
22	9.773018	9.905925	9.867094	10.132906	10.094075	10.226981	38
23	9.773190	9.905832	9.867358	10.132642	10.094168	10.226810	37
24	9.773361	9.905739	9.867623	10.132377	10.094261	10.226639	36
25	9.773533	9.905645	9.867887	10.132113	10.094355	10.226467	35
26	9.773704	9.905552	9.868152	10.131848	10.094448	10.226296	34
27	9.773875	9.905459	9.868416	10.131584	10.094541	10.226125	33
28	9.774046	9.905366	9.868680	10.131320	10.094634	10.225954	32
29	9.774217	9.905272	9.868945	10.131055	10.094728	10.225783	31
30	9.774388	9.905179	9.869209	10.130791	10.094821	10.225612	30
	Sine.		Tang.		Secant.		Min.

62 Degrees.



# Tangents and Secants.

64

36 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.774388	9.905179	9.869209	10.130791	10.094821	10.225612	30
31	9.744558	9.905085	9.869473	10.130527	10.094915	10.225442	29
32	9.774729	9.904992	9.869737	10.130263	10.095008	10.225271	28
33	9.774899	9.904898	9.870001	10.129999	10.095102	10.225101	27
34	9.775070	9.904804	9.870265	10.129735	10.095196	10.224930	26
35	9.775240	9.904711	9.870529	10.129471	10.095289	10.224760	25
36	9.775410	9.904617	9.870793	10.129207	10.095383	10.224590	24
37	9.775580	9.904528	9.871057	10.128943	10.095477	10.224420	23
38	9.775750	9.904429	9.871321	10.128679	10.095571	10.224250	22
39	9.775920	9.904335	9.871585	10.128415	10.095665	10.224080	21
40	9.776090	9.904241	9.871849	10.128151	10.095759	10.223910	20
41	9.776259	9.904147	9.872112	10.127888	10.095853	10.223741	19
42	9.776429	9.904053	9.872376	10.127624	10.095947	10.223571	18
43	9.776598	9.903959	9.872640	10.127360	10.096041	10.223402	17
44	9.776768	9.903864	9.872903	10.127097	10.096136	10.223232	16
45	9.776937	9.903770	9.873167	10.126833	10.096230	10.223063	15
46	9.777106	9.903676	9.873430	10.126570	10.096324	10.222894	14
47	9.777275	9.903581	9.873694	10.126306	10.096419	10.222725	13
48	9.777444	9.903487	9.873957	10.126042	10.096513	10.222556	12
49	9.777613	9.903392	9.874220	10.125780	10.096608	10.222387	11
50	9.777781	9.903298	9.874484	10.125516	10.096703	10.222218	10
51	9.777950	9.903203	9.874747	10.125253	10.096797	10.222050	9
52	9.778119	9.903108	9.875010	10.124990	10.096892	10.221881	8
53	9.778287	9.903014	9.875273	10.124727	10.096986	10.221713	7
54	9.778455	9.902929	9.875536	10.124463	10.097081	10.221545	6
55	9.778623	9.902824	9.875800	10.124200	10.097176	10.221376	5
56	9.778792	9.902729	9.876063	10.123937	10.097271	10.221208	4
57	9.778960	9.902634	9.876326	10.123674	10.097366	10.221040	3
58	9.779128	9.902539	9.876589	10.123411	10.097461	10.220872	2
59	9.779295	9.902444	9.876851	10.123148	10.097556	10.220705	1
60	9.779463	9.902349	9.877114	10.122886	10.097651	10.220537	0
	Sine.		Tang.		Secant.		Min.

53 Degrees.

# A Table of Artificial Sines,

37 Degrees.

Min.	Sine.		Tang.		Secant.		Min.
0	9.779463	9.902349	9.877114	10.122886	10.097651	10.220537	60
1	9.779631	9.902253	9.877377	10.122623	10.097747	10.220369	59
2	9.779798	9.902158	9.877640	10.122360	10.097842	10.220202	58
3	9.779965	9.902063	9.877903	10.122097	10.097937	10.220034	57
4	9.780133	9.901967	9.878165	10.121835	10.098033	10.219867	56
5	9.780300	9.901872	9.878428	10.121572	10.098128	10.219700	55
6	9.780467	9.901776	9.878691	10.121309	10.098224	10.219533	54
7	9.780634	9.901681	9.878953	10.121047	10.098319	10.219366	53
8	9.780801	9.901585	9.879216	10.120784	10.098415	10.219199	52
9	9.780968	9.901489	9.879478	10.120522	10.098510	10.219032	51
10	9.781134	9.901394	9.879741	10.120259	10.098606	10.218866	50
11	9.781301	9.901298	9.880003	10.119997	10.098702	10.218699	49
12	9.781467	9.901202	9.880265	10.119735	10.098798	10.218532	48
13	9.781634	9.901106	9.880528	10.119472	10.098894	10.218366	47
14	9.781800	9.901010	9.880799	10.119210	10.098990	10.218190	46
15	9.781966	9.900914	9.881052	10.118948	10.099086	10.218034	45
16	9.782132	9.900818	9.881314	10.118686	10.099182	10.217868	44
17	9.782298	9.900721	9.881576	10.118423	10.099278	10.217702	43
18	9.782464	9.900626	9.881839	10.118161	10.099374	10.217536	42
19	9.782630	9.900529	9.882101	10.117899	10.099471	10.217370	41
20	9.782796	9.900433	9.882363	10.117637	10.099567	10.217204	40
21	9.782961	9.900337	9.882625	10.117375	10.099663	10.217039	39
22	9.783127	9.900240	9.882887	10.117113	10.099760	10.216873	38
23	9.783292	9.900144	9.883148	10.116852	10.099856	10.216708	37
24	9.783457	9.900047	9.883410	10.116590	10.099953	10.216542	36
25	9.783623	9.899951	9.883672	10.116328	10.100049	10.216377	35
26	9.783788	9.899854	9.883934	10.116066	10.100146	10.216212	34
27	9.783953	9.899757	9.884196	10.115804	10.100243	10.216047	33
28	9.784118	9.899660	9.884457	10.115543	10.100340	10.215882	32
29	9.784282	9.899564	9.884719	10.115281	10.100436	10.215718	31
30	9.784447	9.899467	9.884980	10.115020	10.100533	10.215553	30
	Sine.		Tang.		Secant.		Min.

52 Degrees.

# Tangents and Secants.

37 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.784447	9.899467	9.884980	10.115019	10.100533	10.215553	30
31	9.784612	9.899370	9.885242	10.114758	10.100630	10.215388	29
32	9.784776	9.899272	9.885503	10.114496	10.100727	10.215224	28
33	9.784941	9.899176	9.885765	10.114235	10.100824	10.215059	27
34	9.725105	9.899078	9.886026	10.113974	10.100922	10.214895	26
35	9.785269	9.898981	9.886288	10.113712	10.101019	10.214731	25
36	9.785433	9.898884	9.886549	10.113450	10.101116	10.214567	24
37	9.785597	9.898787	9.886810	10.113189	10.101213	10.214403	23
38	9.785761	9.898689	9.887072	10.112928	10.101311	10.214239	22
39	9.785929	9.898582	9.887333	20.112667	10.101408	10.214075	21
40	9.786089	9.898494	9.887594	10.112406	10.101506	10.213911	20
41	9.786252	9.898397	9.887855	10.112145	10.101603	10.213748	19
42	9.786416	9.898499	9.888116	10.111883	10.101701	10.213584	18
43	9.786579	9.898201	9.888377	10.111622	10.101798	10.213420	17
44	9.786742	9.898104	9.888639	10.111361	10.101896	10.213258	16
45	9.786906	9.898006	9.888900	10.111100	10.101994	10.213094	15
46	9.787069	9.897908	9.889160	10.110839	10.102092	10.212931	14
47	9.787232	9.897810	9.889421	20.110579	10.102190	10.212768	13
48	9.787395	9.897712	9.889682	10.110318	10.102288	10.212605	12
49	9.787557	9.897614	9.889943	10.110057	10.102386	10.212443	11
50	9.787720	9.897516	9.890204	10.109796	10.102484	10.212280	10
51	9.787883	9.897418	9.890465	10.109535	10.102582	10.212117	9
52	9.788045	9.897322	9.890725	10.109275	10.102680	10.211955	8
53	9.788208	9.897222	9.890986	10.109014	10.102778	10.211792	7
54	9.788370	9.897123	9.891247	10.108753	10.102877	10.211630	6
55	9.788532	9.897025	9.891507	10.108493	10.102975	10.211467	5
56	9.788694	9.896926	9.891768	10.108232	10.103073	10.211305	4
57	9.788856	9.896828	9.892028	10.107971	10.103172	10.211143	3
58	9.789018	9.896729	9.892289	10.107711	10.103271	10.210982	2
59	9.789180	9.896631	9.892549	10.107451	10.103369	10.210820	1
60	9.789342	9.896532	9.892810	10.107190	10.103468	10.210658	0
	Sine.		Tang.		Secant.		

52 Degrees.

Min.

# A Table of Artificial Sines,

38 Degrees.

Min.	Sine.		Tang.		Secant.	
0	9.789342	9.896532	9.892810	10.107190	10.103468	10.210658
1	9.789504	9.896433	9.893070	10.106930	10.103567	10.210496
2	9.789665	9.896335	9.893331	10.106669	10.103665	10.210335
3	9.789827	9.896236	9.893591	10.106409	10.103764	10.210173
4	9.789988	9.896137	9.893851	10.106149	10.103863	10.210012
5	9.790149	9.896038	9.894111	10.105889	10.003962	10.209851
6	9.790310	9.895939	9.884371	10.105628	10.104061	10.209690
7	9.790471	9.895840	9.894632	10.105368	10.104160	10.209528
8	9.790633	9.895741	9.894892	10.105108	10.104259	10.209367
9	9.790792	9.895641	9.895152	10.104848	10.104359	10.209207
10	9.790954	9.895542	9.895412	10.104588	10.104458	10.209046
11	9.791115	9.895443	9.895672	10.104328	10.104557	10.208885
12	9.791275	9.895343	9.895932	10.104068	10.104656	10.208725
13	9.791436	9.895244	9.896192	10.103808	10.104756	10.208564
14	9.791596	9.895144	9.896452	10.103548	10.104855	10.208404
15	9.791757	9.895045	9.896712	10.103288	10.104955	10.208243
16	9.791917	9.894945	9.896971	10.103029	10.105055	10.208083
17	9.792077	9.894846	9.897231	10.102769	10.105154	10.207923
18	9.792237	9.894746	9.897491	10.102500	10.105254	10.207763
19	9.792397	9.894646	9.897751	10.102249	10.105354	10.207603
20	9.792557	9.894546	9.898010	10.101990	10.105454	10.207443
21	9.792716	9.894446	9.898270	10.101730	10.105554	10.207284
22	9.792876	9.894346	9.898530	10.101470	10.105654	10.207124
23	9.793035	9.894246	9.898789	10.101211	10.105754	10.206964
24	9.793195	9.894146	9.899049	10.100951	10.105854	10.206805
25	9.793354	9.894046	9.899308	10.100692	10.105954	10.206646
26	9.793513	9.893946	9.899568	10.100432	10.106054	10.206486
27	9.793673	9.893846	9.899827	10.100173	10.106154	10.206327
28	9.793832	9.893745	9.900086	10.099913	10.106255	10.206168
29	9.793991	9.893645	9.900346	10.099654	10.106355	10.206009
30	9.794150	9.893544	9.900605	10.099395	10.106456	10.205850
	Sine.		Tang.		Secant.	

51 Degrees.

Min.



# Tangents and Secants.

66

38 Degrees.

Min.	Sine.	Tang.	Secant.	
30	9.794150	9.893544	9.900605	10.099395
31	9.794308	9.893444	9.900864	10.099135
32	9.794467	9.893343	9.901124	10.098876
33	9.794626	9.893243	9.901383	10.098617
34	9.794784	9.893142	9.901642	10.098358
35	9.794942	9.893041	9.901901	10.098099
36	9.795101	9.892940	9.902160	10.097840
37	9.795259	9.892839	9.902419	10.097580
38	9.795417	9.892738	9.902679	10.097321
39	9.795575	9.892637	9.902938	10.097062
40	9.795733	9.892536	9.903197	10.096803
41	9.795891	9.892435	9.903455	10.096544
42	9.796049	9.892334	9.903714	10.096286
43	9.796206	9.892233	9.903973	10.096028
44	9.796364	9.892132	9.904232	10.095768
45	9.796521	9.892030	9.904491	10.095509
46	9.796679	9.891929	9.904750	10.095250
47	9.796836	9.891827	9.905008	10.094992
48	9.796993	9.891726	9.905267	10.094733
49	9.797150	9.891624	9.905526	10.094474
50	9.797307	9.891523	9.905784	10.094215
51	9.797464	9.891421	9.906043	10.093957
52	9.797621	9.891319	9.906302	10.093698
53	9.797777	9.891217	9.906560	10.093440
54	9.797934	9.891115	9.906819	10.093181
55	9.798091	9.891013	9.907077	10.092923
56	9.798247	9.890911	9.907336	10.092664
57	9.798403	9.890809	9.907594	10.092406
58	9.798560	9.890707	9.907852	10.092147
59	9.798719	9.890605	9.908111	10.091889
60	9.798872	9.890503	9.908369	10.091631
	Sine.	Tang.		Secant.

51 Degrees.

Min.

51 Degrees.

# A Table of Artificial Sines,

39 Degrees.

Min.	Sine.	Tang.	Secant.	Min.
0	9.7988729	9.908369	10.091631	10.201128
1	9.7990289	9.908627	10.091372	10.200972
2	9.7991849	9.908886	10.091114	10.200816
3	9.7993399	9.909144	10.090856	10.200661
4	9.7994959	9.909401	10.090598	10.200505
5	9.7996519	9.909660	10.090340	10.200349
6	9.7998069	9.909918	10.090083	10.200194
7	9.7999629	9.910177	10.089823	10.200038
8	9.8001179	9.910435	10.089565	10.199883
9	9.8002729	9.910693	10.089307	10.199728
10	9.8004279	9.910951	10.089049	10.199573
11	9.8005829	9.911209	10.088791	10.199418
12	9.8007379	9.911467	10.088533	10.199263
13	9.8008929	9.911724	10.088275	10.199108
14	9.8010479	9.911982	10.088018	10.198953
15	9.8012019	9.912240	10.087760	10.198798
16	9.8013569	9.912498	10.087502	10.198644
17	9.8015119	9.912756	10.087244	10.198489
18	9.8016659	9.913014	10.086986	10.198335
19	9.8018199	9.913271	10.086729	10.198181
20	9.8019739	9.913529	10.086471	10.198026
21	9.8021289	9.913787	10.086213	10.197872
22	9.8022829	9.914044	10.085956	10.197718
23	9.8024379	9.914302	10.085698	10.197564
24	9.8025899	9.914560	10.085440	10.197411
25	9.8027439	9.914817	10.085183	10.197257
26	9.8028979	9.915075	10.084925	10.197103
27	9.8030509	9.915332	10.084668	10.196950
28	9.8032049	9.915590	10.084410	10.196796
29	9.8033579	9.915847	10.084153	10.196643
30	9.8035109	9.916104	10.083895	10.196489
	Sine.	Tang.	Secant.	Min.

50 Degrees.

## Tangents and Secants.

39 Degrees.

Min.	Sine.		Tang.		Secant.		
30	9.803510	9.887406	9.916104	10.083895	10.112594	10.196489	30
31	9.803664	9.887302	9.916362	10.083638	10.112698	10.196336	29
32	9.803817	9.887198	9.916619	10.083381	10.112802	10.196183	28
33	9.803970	9.887093	9.916876	10.083123	10.112907	10.196030	27
34	9.804123	9.886989	9.917134	10.082866	10.113011	10.195877	26
35	9.804276	9.886885	9.917391	10.082609	10.113115	10.195724	25
36	9.804428	9.886780	9.917648	10.082352	10.113220	10.195572	24
37	9.804581	9.886676	9.917905	10.082094	10.113324	10.195419	23
38	9.804734	9.886571	9.918163	10.081837	10.113429	10.195266	22
39	9.804886	9.886466	9.918420	10.081580	10.113534	10.195114	21
40	9.805038	9.886362	9.918677	10.081323	10.113638	10.194961	20
41	9.805191	9.886257	9.918934	10.081066	10.113743	10.194809	19
42	9.805343	9.886152	9.919191	10.080809	10.113848	10.194657	18
43	9.805495	9.886047	9.919448	10.080552	10.113953	10.194505	17
44	9.805647	9.885942	9.919705	10.080295	10.114058	10.194353	16
45	9.805799	9.885837	9.919962	10.080038	10.114163	10.194201	15
46	9.805951	9.885732	9.920219	10.079781	10.114268	10.194049	14
47	9.806103	9.885627	9.920476	10.079524	10.114373	10.193897	13
48	9.806254	9.885521	9.920733	10.079267	10.114478	10.193746	12
49	9.806406	9.885416	9.920990	10.079010	10.114584	10.193594	11
50	9.806557	9.885311	9.921247	10.078753	10.114689	10.193442	10
51	9.806709	9.885205	9.921503	10.078497	10.114794	10.193291	9
52	9.806860	9.885100	9.921760	10.078240	10.114900	10.193140	8
53	9.807011	9.884994	9.922017	10.077983	10.115005	10.192989	7
54	9.807163	9.884889	9.922274	10.077726	10.115111	10.192837	6
55	9.807314	9.884783	9.922530	10.077470	10.115217	10.192686	5
56	9.807465	9.884677	9.922787	10.077213	10.115322	10.192535	4
57	9.807616	9.884572	9.923044	10.076956	10.115428	10.192385	3
58	9.807766	9.884466	9.923300	10.076700	10.115534	10.192234	2
59	9.807917	9.884360	9.923557	10.076443	10.115640	10.192083	1
60	9.80806	9.884254	9.923813	10.076186	10.115746	10.191931	0
	Sine.		Tang.		Secant.		Min.

50 Degrees.

# A Table of Artificial Sines,

40 Degrees.

Min.	Sine.		Tang.		Secant.	
0	9.808057	9.884254	9.923813	10.076186	10.115746	10.191932
1	9.808218	9.884148	9.924070	10.075930	10.115852	10.191782
2	9.808368	9.884042	9.924327	10.075673	10.115958	10.191632
3	9.808519	9.883936	9.924583	10.075417	10.116064	10.191481
4	9.808669	9.883829	9.924840	10.075160	10.116170	10.191331
5	9.808819	9.883723	9.925096	10.074904	10.116277	10.191180
6	9.808969	9.883617	9.925352	10.074648	10.116383	10.191030
7	9.809119	9.883510	9.925609	10.074391	10.116490	10.190881
8	9.809269	9.883404	9.925865	10.074135	10.116596	10.190731
9	9.809419	9.883297	9.926121	10.073878	10.116703	10.190581
10	9.809569	9.883191	9.926378	10.073622	10.116809	10.190431
11	9.809718	9.883084	9.926634	10.073366	10.116916	10.190282
12	9.809868	9.882977	9.926890	10.073110	10.117023	10.190132
13	9.810017	9.882871	9.927147	10.072853	10.117129	10.189983
14	9.810167	9.882764	9.927403	10.072597	10.117236	10.189833
15	9.810316	9.882657	9.927659	10.072341	10.117343	10.189684
16	9.810465	9.882550	9.927915	10.072085	10.117450	10.189535
17	9.810614	9.882443	9.928171	10.071829	10.117557	10.189386
18	9.810763	9.882336	9.928427	10.071573	10.117664	10.189237
19	9.810912	9.882228	9.928683	10.071316	10.117771	10.189088
20	9.811061	9.882121	9.928940	10.071060	10.117879	10.188939
21	9.811210	9.882014	9.929196	10.070804	10.117986	10.188790
22	9.811358	9.881907	9.929452	10.070548	10.118093	10.188642
23	9.811507	9.881799	9.929708	10.070292	10.118201	10.188493
24	9.811655	9.881692	9.929964	10.070036	10.118308	10.188345
25	9.811804	9.881584	9.930219	10.069780	10.118416	10.188196
26	9.811952	9.881477	9.930475	10.069524	10.118523	10.188048
27	9.812100	9.881369	9.930731	10.069269	10.118631	10.187900
28	9.812248	9.881261	9.930987	10.069013	10.118739	10.187752
29	9.812396	9.881153	9.931243	10.068757	10.118847	10.187603
30	9.812544	9.881045	9.931499	10.068501	10.118954	10.187456
	Sine.		Tang.		Secant.	Min.

49 Degrees.



Tangents and Secants.

40 Degrees.

Min.	Sine.	Tang.	Secant.
30	9.812544	9.881055	9.931499
31	9.812692	9.880938	9.931255
32	9.812840	9.880830	9.932010
33	9.812988	9.880721	9.932266
34	9.813135	9.880613	9.932522
35	9.813283	9.880505	9.932778
36	9.813430	9.880397	9.933033
37	9.813578	9.880289	9.933289
38	9.813725	9.880180	9.933545
39	9.813872	9.880072	9.933800
40	9.814019	9.879963	9.934056
41	9.814166	9.879855	9.934311
42	9.814313	9.879746	9.934567
43	9.814460	9.879637	9.934822
44	9.814607	9.879529	9.935078
45	9.814753	9.879420	9.935333
46	9.814900	9.879311	9.935589
47	9.815046	9.879202	9.935844
48	9.815193	9.879093	9.936100
49	9.815339	9.878984	9.936355
50	9.815485	9.878875	9.936610
51	9.815631	9.878766	9.936866
52	9.815778	9.878656	9.937121
53	9.815923	9.878547	9.937376
54	9.816069	9.878438	9.937632
55	9.816215	9.878328	9.937887
56	9.816361	9.878219	9.938142
57	9.816507	9.878109	9.938397
58	9.816652	9.877999	9.938653
59	9.816797	9.877890	9.938908
60	9.816943	9.877780	9.939163
	Sine.	Tang.	Secant.

49 Degrees.

Min.

# A Table of Artificial Sines,

41 Degrees.

Min.	Sine.	Tang.	Secant.	Min.			
0	9.816943	9.877780	9.939163	10.060837	10.122220	10.183057	60
1	9.817088	9.877670	9.939418	10.060582	10.122330	10.182919	59
2	9.817233	9.877560	9.939673	10.060327	10.122440	10.182767	58
3	9.817378	9.877450	9.939928	10.060072	10.122550	10.182621	57
4	9.817523	9.877340	9.940183	10.059816	10.122660	10.182476	56
5	9.817668	9.877230	9.940438	10.059561	10.122770	10.182331	55
6	9.817813	9.877120	9.940694	10.059306	10.122880	10.182187	54
7	9.817958	9.877010	9.940949	10.059051	10.122990	10.182042	53
8	9.818103	9.876899	9.941204	10.058796	10.123101	10.181897	52
9	9.818247	9.876789	9.941458	10.058541	10.123211	10.181752	51
10	9.818392	9.876678	9.941713	10.058286	10.123321	10.181608	50
11	9.818536	9.876568	9.941968	10.058032	10.123432	10.181464	49
12	9.818681	9.876457	9.942223	10.057777	10.123543	10.181319	48
13	9.818825	9.876347	9.942478	10.057522	10.123653	10.181175	47
14	9.818969	9.876236	9.942733	10.057267	10.123764	10.181031	46
15	9.819113	9.876125	9.942988	10.057011	10.123875	10.180887	45
16	9.819258	9.876014	9.943243	10.056757	10.123985	10.180743	44
17	9.819401	9.875904	9.943498	10.056502	10.124096	10.180599	43
18	9.819545	9.875793	9.943752	10.056248	10.124207	10.180455	42
19	9.819689	9.875682	9.944007	10.055993	10.124318	10.180311	41
20	9.819832	9.875571	9.944262	10.055738	10.124429	10.180167	40
21	9.819976	9.875459	9.944517	10.055483	10.124541	10.180024	39
22	9.820120	9.875348	9.944771	10.055229	10.124652	10.179880	38
23	9.820263	9.875237	9.945026	10.054974	10.124763	10.179737	37
24	9.820406	9.875126	9.945281	10.054719	10.124874	10.179594	36
25	9.820550	9.875014	9.945535	10.054465	10.124986	10.179450	35
26	9.820693	9.874903	9.945790	10.054210	10.125097	10.179307	34
27	9.820836	9.874791	9.946045	10.053955	10.125209	10.179164	33
28	9.820979	9.874679	9.946299	10.053701	10.125320	10.179021	32
29	9.821122	9.874568	9.946554	10.053446	10.125432	10.178878	31
30	9.821265	9.874456	9.946808	10.053192	10.125544	10.178735	30
	Sine.	Tang.	Secant.				

48 Degrees.

48 Degrees.

# Tangents and Secants.

41 Degrees.

Min.	Sine.	Tang.	Secant.	Min.			
30	9.821265	9.874456	9.946805	10.053192	10.125544	10.178735	30
31	9.821407	9.874344	9.947063	10.052937	10.125656	10.178593	29
32	9.821550	9.874232	9.947317	10.052682	10.125767	10.178450	28
33	9.821693	9.874120	9.947572	10.052428	10.125879	10.178307	27
34	9.821835	9.874008	9.947826	10.052173	10.125991	10.178165	26
35	9.821977	9.873896	9.948081	10.051919	10.126103	10.178022	25
36	9.822120	9.873784	9.948335	10.051664	10.126216	10.177880	24
37	9.822262	9.873672	9.948590	10.051410	10.126328	10.177738	23
38	9.822404	9.873560	9.948844	10.051156	10.126440	10.177596	22
39	9.822546	9.873448	9.949099	10.050901	10.126552	10.177454	21
40	9.822688	9.873335	9.949353	10.050647	10.126665	10.177312	20
41	9.822830	9.873223	9.949607	10.050392	10.126777	10.177170	19
42	9.822972	9.873110	9.949862	10.050138	10.126900	10.177028	18
43	9.823114	9.872998	9.950116	10.049884	10.127002	10.176886	17
44	9.823255	9.872885	9.950370	10.049629	10.127115	10.176744	16
45	9.823397	9.872772	9.950625	10.049375	10.127228	10.176603	15
46	9.823539	9.872659	9.950879	10.049121	10.127341	10.176461	14
47	9.823680	9.872547	9.951133	10.048867	10.127453	10.176320	13
48	9.823821	9.872434	9.951388	10.048612	10.127566	10.176179	12
49	9.823963	9.872321	9.951642	10.048358	10.127679	10.176037	11
50	9.824104	9.872208	9.951896	10.048104	10.127792	10.175896	10
51	9.824245	9.872094	9.952150	10.047850	10.127905	10.175755	9
52	9.824386	9.871981	9.952404	10.047595	10.128019	10.175614	8
53	9.824527	9.871868	9.952659	10.047341	10.128132	10.175473	7
54	9.824668	9.871755	9.952913	10.047087	10.128245	10.175332	6
55	9.824808	9.871641	9.953167	10.046833	10.128359	10.175192	5
56	9.824949	9.871528	9.953421	10.046579	10.128472	10.175051	4
57	9.825090	9.871414	9.953675	10.046325	10.128586	10.174910	3
58	9.825230	9.871301	9.953929	10.046071	10.128699	10.174770	2
59	9.825370	9.871187	9.954183	10.045817	10.128813	10.174629	1
60	9.825511	9.871073	9.954437	10.045562	10.128926	10.174489	0
	Sine.	Tang.	Secant.				

48 Degrees.

# A Table of Artificial Sines,

42 Degrees.

Min.	Sine.		Tang.		Secant.	
0	9.82551	9.871073	9.954437	10.045563	10.128926	10.174489
1	9.82565	9.870960	9.954691	10.045308	10.129040	10.174349
2	9.82579	9.870846	9.954945	10.045054	10.129154	10.174209
3	9.82593	9.870732	9.955199	10.044800	10.129268	10.174069
4	9.82607	9.870618	9.955453	10.044546	10.129382	10.173928
5	9.82621	9.870504	9.955707	10.044292	10.129496	10.173789
6	9.82635	9.870390	9.955961	10.044038	10.129610	10.173649
7	9.82649	9.870276	9.956215	10.043785	10.129724	10.173509
8	9.82663	9.870161	9.956469	10.043531	10.129839	10.173370
9	9.82677	9.870047	9.956723	10.043277	10.129953	10.173230
10	9.82691	9.869933	9.956977	10.043023	10.130067	10.173090
11	9.82704	9.869818	9.957231	10.042769	10.130182	10.172951
12	9.82718	9.869704	9.957485	10.042515	10.130296	10.172811
13	9.82732	9.869589	9.957739	10.042261	10.130411	10.172672
14	9.82746	9.869474	9.957993	10.042007	10.130526	10.172533
15	9.82760	9.869360	9.958246	10.041753	10.130640	10.172394
16	9.82774	9.869245	9.958500	10.041500	10.130755	10.172255
17	9.82788	9.869130	9.958754	10.041246	10.130870	10.172116
18	9.82802	9.869015	9.959008	10.040992	10.130985	10.171977
19	9.82816	9.868900	9.959262	10.040738	10.131100	10.171838
20	9.82830	9.868785	9.959515	10.040484	10.131215	10.171699
21	9.82843	9.868670	9.959770	10.040231	10.131330	10.171561
22	9.82857	9.868555	9.960023	10.039977	10.131445	10.171422
23	9.82871	9.868440	9.960277	10.039723	10.131560	10.171284
24	9.82885	9.868324	9.960530	10.039470	10.131676	10.171145
25	9.82899	9.868209	9.960784	10.039216	10.131791	10.171007
26	9.82913	9.868093	9.961038	10.038962	10.131907	10.170869
27	9.82926	9.867978	9.961291	10.038708	10.132022	10.170731
28	9.82940	9.867862	9.961545	10.038455	10.132138	10.170591
29	9.82954	9.867747	9.961799	10.038201	10.132253	10.170455
30	9.82968	9.867631	9.962052	10.037947	10.132369	10.170317
	Sine.		Tang.		Secant.	

47 Degrees.

Min.



## Tangents and Secants. A

42 Degrees.

Min.	Sine.	Tang.	Secant.	Min.
30	9.829683	9.867631	10.037947	30
31	9.829821	9.867515	10.037694	29
32	9.829959	9.867399	10.037440	28
33	9.830097	9.867283	10.037187	27
34	9.830234	9.867167	10.036933	26
35	9.830372	9.867051	10.036680	25
36	9.830509	9.866935	10.036426	24
37	9.830646	9.866819	10.036172	23
38	9.830784	9.866703	10.035919	22
39	9.830921	9.866587	10.035665	21
40	9.831058	9.866470	10.035412	20
41	9.831195	9.866353	10.035158	19
42	9.831332	9.866237	10.034905	18
43	9.831469	9.866120	10.034651	17
44	9.831606	9.866004	10.034399	16
45	9.831742	9.865887	10.034144	15
46	9.831879	9.865770	10.033891	14
47	9.832015	9.865653	10.033638	13
48	9.832152	9.865536	10.033384	12
49	9.832288	9.865419	10.033131	11
50	9.832425	9.865302	10.032877	10
51	9.832561	9.865185	10.032624	9
52	9.832697	9.865068	10.032371	8
53	9.832833	9.864950	10.032117	7
54	9.832970	9.864833	10.031864	6
55	9.833105	9.864716	10.031611	5
56	9.833241	9.864598	10.031357	4
57	9.833377	9.864481	10.031104	3
58	9.833512	9.864363	10.030851	2
59	9.833648	9.864245	10.030597	1
60	9.833783	9.864127	10.030344	0
	Sine.	Tang.	Secant.	Min.

47 Degrees.

# A Table of Artificial Sines,

43 Degrees.

Min.	Sine.		Tang.		Secant.		
0	9.833783	9.864127	9.969656	10.030344	10.135872	10.166217	60
1	9.833919	9.864010	9.969909	10.030091	10.135990	10.166081	59
2	9.834054	9.863892	9.970162	10.029838	10.136108	10.165946	58
3	9.834189	9.863774	9.970416	10.029584	10.136226	10.165811	57
4	9.834325	9.863656	9.970669	10.029331	10.136344	10.165675	56
5	9.834460	9.863538	9.970922	10.029078	10.136462	10.165540	55
6	9.834595	9.863419	9.971175	10.028825	10.136581	10.165405	54
7	9.834730	9.863301	9.971429	10.028571	10.136699	10.165270	53
8	9.834865	9.863183	9.971682	10.028318	10.136817	10.165135	52
9	9.834999	9.863064	9.971935	10.028065	10.136936	10.165001	51
10	9.835134	9.862946	9.972188	10.027812	10.137054	10.164866	50
11	9.835269	9.862827	9.972441	10.027559	10.137173	10.164731	49
12	9.835403	9.862709	9.972694	10.027305	10.137291	10.164597	48
13	9.835538	9.862590	9.972948	10.027052	10.137410	10.164462	47
14	9.835672	9.862471	9.973201	10.026799	10.137529	10.164328	46
15	9.835807	9.862353	9.973454	10.026546	10.137647	10.164193	45
16	9.835941	9.862234	9.973707	10.026293	10.137766	10.164059	44
17	9.836075	9.862115	9.973960	10.026040	10.137885	10.163925	43
18	9.836209	9.861996	9.974213	10.025787	10.138004	10.163791	42
19	9.836343	9.861877	9.974466	10.025534	10.138123	10.163657	41
20	9.836477	9.861758	9.974719	10.025280	10.138242	10.163523	40
21	9.836611	9.861638	9.974973	10.025027	10.138362	10.163389	39
22	9.836745	9.861519	9.975226	10.024774	10.138481	10.163255	38
23	9.836878	9.861400	9.975479	10.024521	10.138600	10.163122	37
24	9.837012	9.861280	9.975732	10.024268	10.138720	10.162988	36
25	9.837146	9.861161	9.975985	10.024015	10.138839	10.162854	35
26	9.837279	9.861041	9.976238	10.023762	10.138959	10.162721	34
27	9.837413	9.860921	9.976491	10.023509	10.139078	10.162587	33
28	9.837546	9.860802	9.976744	10.023256	10.139198	10.162454	32
29	9.837679	9.860682	9.976997	10.023003	10.139318	10.162321	31
30	9.837812	9.860562	9.977250	10.022750	10.139438	10.162188	30
	Sine.		Tang.		Secant.		Min.

46 Degrees.

# Tangents and Secants.

43 Degrees.

Min.	Sine.	Tang.	Secant.	Min.			
30	9.837812	9.860562	9.977250	10.022750	10.139438	10.162188	30
31	9.837945	9.860442	9.977503	10.022497	10.139558	10.162055	29
32	9.838078	9.860322	9.977756	10.022244	10.139678	10.161922	28
33	9.838211	9.860202	9.978009	10.021991	10.139798	10.161789	27
34	9.838344	9.860082	9.978262	10.021738	10.139918	10.161656	26
35	9.838477	9.859962	9.978515	10.021485	10.140038	10.161523	25
36	9.838607	9.859842	9.978768	10.021232	10.140158	10.161390	24
37	9.838742	9.859721	9.979021	10.020979	10.140279	10.161258	23
38	9.838875	9.859601	9.979274	10.020726	10.140399	10.161125	22
39	9.839007	9.859480	9.979527	10.020473	10.140520	10.160993	21
40	9.839140	9.859360	9.979780	10.020220	10.140640	10.160860	20
41	9.839272	9.859239	9.980033	10.019967	10.140761	10.160728	19
42	9.839404	9.859119	9.980286	10.019714	10.140881	10.160596	18
43	9.839536	9.858998	9.980538	10.019461	10.141002	10.160464	17
44	9.839668	9.858877	9.980791	10.019209	10.141123	10.160332	16
45	9.839800	9.858756	9.981044	10.018956	10.141244	10.160200	15
46	9.839932	9.858635	9.981297	10.018703	10.141365	10.160068	14
47	9.840064	9.858514	9.981550	10.018450	10.141486	10.159936	13
48	9.840196	9.858393	9.981803	10.018197	10.141607	10.159804	12
49	9.840328	9.858272	9.982056	10.017944	10.141728	10.159672	11
50	9.840460	9.858150	9.982309	10.017691	10.141849	10.159540	10
51	9.840591	9.858029	9.982562	10.017438	10.141971	10.159409	9
52	9.840722	9.857908	9.982814	10.017185	10.142092	10.159278	8
53	9.840854	9.857786	9.983067	10.016933	10.142214	10.159146	7
54	9.840985	9.857665	9.983320	10.016680	10.142335	10.159015	6
55	9.841116	9.857543	9.983573	10.016427	10.142457	10.158884	5
56	9.841247	9.857421	9.983826	10.016174	10.142579	10.158753	4
57	9.841378	9.857300	9.984079	10.015921	10.142700	10.158621	3
58	9.841509	9.857178	9.984331	10.015668	10.142822	10.158490	2
59	9.841640	9.857056	9.984584	10.015416	10.142944	10.158360	1
60	9.841771	9.856934	9.984837	10.015163	10.143066	10.158229	0
	Sine.	Tang.	Secant.				Min.

46 Degrees.

46 Degrees.



# A Table of Artificial Sines,

44 Degrees.

Min.	Sine.	Tang.	Secant.
0	9.841771	9.856934	9.984837
1	9.841902	9.856812	9.985090
2	9.842033	9.856690	9.985343
3	9.842163	9.856568	9.985596
4	9.842204	9.856445	9.985848
5	9.842424	9.856323	9.986101
6	9.842555	9.856201	9.986354
7	9.842685	9.856078	9.986607
8	9.842815	9.855956	9.986860
9	9.842946	9.855833	9.987112
10	9.843076	9.855711	9.987365
11	9.843206	9.855588	9.987618
12	9.843336	9.855465	9.987871
13	9.843465	9.855342	9.988123
14	9.843595	9.855219	9.988376
15	9.843725	9.855096	9.988629
16	9.843855	9.854973	9.988882
17	9.843984	9.854850	9.989134
18	9.844114	9.854727	9.989387
19	9.844243	9.854603	9.989640
20	9.844372	9.854480	9.989893
21	9.844502	9.854356	9.990146
22	9.844631	9.854233	9.990398
23	9.844760	9.854109	9.990651
24	9.844889	9.853986	9.990903
25	9.845018	9.853862	9.991156
26	9.845147	9.853738	9.991409
27	9.845276	9.853614	9.991662
28	9.845404	9.853490	9.991914
29	9.845533	9.853366	9.992167
30	9.845662	9.853242	9.992420
	Sine	Tang.	Secant.

45 Degrees.

Min.



## Tangents and Secants.

44 Degrees.

M.n.	Sine.	Tang.	Secant.
30	9.845662	9.853242	9.992420
31	9.845790	9.853118	9.992672
32	9.845919	9.852994	9.992925
33	9.846047	9.852869	9.993178
34	9.846175	9.852745	9.993430
35	9.846304	9.852620	9.993683
36	9.846432	9.852496	9.993936
37	9.846551	9.852371	9.994189
38	9.846688	9.852247	9.994441
39	9.846816	9.852122	9.994694
40	9.846944	9.851997	9.994947
41	9.847074	9.851872	9.995199
42	9.847199	9.851747	9.995452
43	9.847327	9.851622	9.995705
44	9.847454	9.851497	9.995957
45	9.847582	9.851372	9.996210
46	9.847709	9.851246	9.996463
47	9.847836	9.851121	9.996715
48	9.847964	9.850996	9.996968
49	9.848091	9.850870	9.997221
50	9.848218	9.850745	9.997473
51	9.848345	9.850619	9.997726
52	9.848472	9.850493	9.997979
53	9.848599	9.850367	9.998231
54	9.848726	9.850242	9.998484
55	9.848852	9.850116	9.998737
56	9.848979	9.849990	9.998989
57	9.849106	9.849864	9.999242
58	9.849232	9.849737	9.999495
59	9.849359	9.849611	9.999747
60	9.849485	9.849485	10.000000
	Sine.	Tang.	Secant.

45 Degrees.

45 Degrees.



## Of the Nature and Use of the Table of Logarithms.

**I**T will be convenient to say something of their Nature and Origen, which is from hence.

If to a Rank of continual Proportionals in a Geometric Progression from Unity. Suppose,

1, 2, 4, 8, 16, 32, 64, &c.

We accommodate a Rank of Exponents in an Arithmetick Progression, from 0. Suppose,

0, 1, 2, 3, 4, 5, &c.

It will be manifest, that for every Multiplication or Division of the Terms in the Geometric Progression one by another, there is an answerable Addition or Subduction of the Exponents.

For, as in the Terms of the Geometrical Progression, 4, Multiplied by 8, makes 32. So in the Exponents or Arithmetical Progression; if to 2, the Exponent of 4, there be added 3, the Exponent of 8, it makes 5 the Exponent of 32 the Product; and as 32 divided by 8, gives 4 for the Quotient; so if from 5 the Exponent of 32, we subtract 3 the Exponent of 8, the Remainder is 2 the Exponent of 4 the Quotient.

Terms in Geometrical Prog. 1, 2, 4, 8, 16, 32, 64, &c.

Terms in Arithm. Prog. or Expon. 0, 1, 2, 3, 4, 5, 6, &c.

$$4 \times 8 = 32$$

$$32 = 4 \times 8$$

$$2 + 3 = 5$$

$$5 - 3 = 2$$

And the same holds if between any two of those Terms, we interpose one or more Geometric mean Proportionals, and between their Exponents as many Arithmetick means.

For,

For if between 4 and 8 (or between 2 and 16) we interpose a Geometric Mean  $\sqrt{32}$ , that is,  $4\sqrt{2}$ , and between 2 and 3 (or 1 and 4) An Arithmetick Mean  $2\frac{1}{2}$  then as  $4\sqrt{2} \times 8$  makes  $32\sqrt{2}$  (a mean Proportional between 32 and 64) so adding their Exponents  $2\frac{1}{2}$  and 3 makes  $5\frac{1}{2}$  an Arithmetick Mean between 5 and 6, and Universally (whatever be the values of r, e,) supposing.

				4	5	6	
The Terms.	1.	r.	rr.	rrr.	r. r.	r.	&c.
Exponents.	0.	e.	2e.	3e.	4e.	5e.	6e. &c.

Then as  $rr \times r = r^3$  &  $\sqrt{rr} \times r = r \sqrt{r}$

So  $2e \times 3e = 5e$  &  $2\frac{1}{2}e \times 3e = 5\frac{1}{2}e$ .

And so every where, and if for 0, e, 2e, 3e, &c.

We take (supposing  $e = 1$ ) 0, 1, 2, 3, 4, &c. then doth this Exponent always gives us the Number of Ratios or Dimensions in the Terms to which it belongs, that is how often the Ratio is Multiplied into it self continually to produce that Term to which it belongs.

			2	3	4	5	6	
	1.	r.	r.	r.	r. r.	r.	&c.	
	0.	1.	2.	3.	4.	5.	6.	&c.

(as 3 in  $r^3$ . 6 in  $r^6$ . and so every where) or shews how many Fold the Proportion of  $r^6$  to 1. is of r to 1. That is, how many Ratios of r to 1 makes  $r^6$  to 1. viz. 6. to which the Name of Logarithms fitly answers, which is derived from a Greek Word signifying *The Number of Proportions so compounded.*

Now this being the Foundation from whence the invention of Logarithms is deduced. It was in the next place proper to take such a Rank of Geometrical Progressional as was most accommodate to our way of Notation of Numbers, where places are in a Decuple Order. viz.

Terms.	1.	10.	100.	1000.	10000.	100000.	1000000.	&c.
Exp.	0.	1.	2.	3.	4.	5.	6.	&c.





Or thus.

1	} Exponents	0.0000000
10		1.0000000
100		2.0000000
1000		3.0000000
10000		4.0000000
100000		5.0000000
1000000		6.0000000

Now since 0, is the Log. of 1, and 1 of 10, therefore all Logarithms between 1 and 10, will be only a Decimal Fraction; that is, there will be 0 on the left hand the Point, that is, in the place of Units; and for the same reason, since the Log. of 10 is 1, and of 100, 2. Therefore all the Numbers between 10 and 100. will have 1 in the Place of Units, and a Decimal Fraction annexed; all Numbers between 100 and 1000 will have 2 in the Place of Units, and a Decimal annexed; between 1000 and 10000. 3 in the place of Units and a Decimal annexed, &c.

That Number which stands in the Place of Units is called the Characteristic, and serves to shew the Number of Places of that Number of which it is a Logarithm, viz. One more than is express'd by that digit of the Log. standing in the place of Units.

So if 0 stand in the place of Units in the Logarithm, the Logarithm is the Logarithm of a Number that consists but of one place, viz. between 1 and 10.

If 1 be the Characteristic of the Logarithm, it belongs to a Number between 10 and 100, viz. of two places. If 2 be the Characteristic, the Number hath 3 places, viz. between 100 and 1000, &c.

Or which comes to the same thing, the Characteristic gives you the distance of the highest place in the Number from Unity. For Example.

385. Five stands in the place of Units, 8 in the 1st. from Unity, and therefore its Exponent is 1, 3 stands in the 2d place from Unity, and therefore its Exponent is 2.

But since 0 is the Exponent or Logarithm of 1, therefore all Fractions will have the Exponent of their Logarithm. Negative,

As for instance of this Decimal Fraction, 0095 its Exponent or Characteristic shall be 3, which shews that the highest Figure here, is distant from the place of Units by 3, viz. on the right hand from Unity, as the dist. of the highest Fig. of this Number, 9500 would have been + 3. Therefore when the Characteristic is affirmative, 'tis the Logarithm of a whole Number, or of a mixt Number. But when Negative, 'tis the Logarithm of a *Fraction*.

From what hath been said you may easily perceive the reason why the Addition of the Logarithms answers to the Multiplication of the Numbers they are Logarithms of; and that the Subtraction of Logarithms or Diff. of the Log. so found Answers to the Quotient resulting from the Division of the Correspondent Numbers.

The way of finding the intermediate Logarithms between 1 and 10, between 10 and 100, &c. since 'tis shewed in several other Treatises, I shall omit, and will now proceed to shew you how to use the Table already made, whose use consists of these 2 Parts.

1. A Number being given to find its Logarithm.
2. A Logarithm being given to find its Correspondent Numbers.

In the first Page of this Table is contained the Logarithms of all Numbers to 100 with their Characteristics prefixt to them.

Thus against the Number 39 is its Log. 1.591064  
against 86 is its Log. 1.934498

The left hand Column of each following Page contains Numbers increasing in their Natural Order from 100 to 999, and in the next Column to it, having 0 on the Head, and against any Num. between those limits is the Decimal Part of the Logarithm requir'd, to which you must annex its proper Index.

For instance, suppose I would find the Logarithm of 765. I look for 765 in the left hand Column, and against it in the Co-

Column under 0, is, 883661, to which if I prefix its proper Index 2. and it becomes 2.883661.

Thus the Logarithms of  $\left\{ \begin{array}{l} 126 \\ 520 \\ 172 \end{array} \right\}$  are  $\left\{ \begin{array}{l} 2.100370 \\ 2.716003 \\ 2.235528 \end{array} \right\}$

The other 5 Columns of each Page contains the Logarithms of all Numbers from 1000 to 9999. Those on the left hand Page, are distinguished on the top with the Figures 0, 1, 2, 3, 4. these on the right hand with 5, 6, 7, 8, 9.

To find the Logarithm of a Number consisting of 4 places; as suppose 3759, I look for the 3 first Figures under Num. in the left hand Column, and for the last at the Top: Then in that Column under the last Fig. and against the 3 first Figures in the left hand Column is the Decimal of the Log. viz. 573072. To which prefixing its proper Index 3, it becomes, 3.573072.

And thus the Log. of  $\left\{ \begin{array}{l} 375.9 \\ 37.59 \\ 3.759 \\ .3759 \\ 0.3759 \end{array} \right\}$  is  $\left\{ \begin{array}{l} 2.573072 \\ 1.573072 \\ 0.573072 \\ 1.573072 \\ 2.573072 \end{array} \right\}$

Now Since 0 is the Logarithm of 1, the Logarithm of all Fractions must be Negative, but may be express'd after two different ways, either so, as that the Note of Negation may affect the whole Logarithm, or only the Characteristic, leaving the Decimal part of the Logarithm to be understood as affirmative.

For Example  $\frac{3}{8}$  or which is Equivalent 0.375 this Fraction supposes the Numerator 3 to be divided by the Denominator 8, which in Logarithms is to be perform'd by Subtracting the Log. of 8. from that of 3. and the Remainder will be the Logarithm of  $\frac{3}{8}$  which will then be the Negative Quantity — 0.4259687 or according to the former Method the Log. of  $\frac{3}{8}$  = 0.375 is — 1.5740312. Where the Index only is Negative, and Decimal

mal Affirmative. Now though these two Expressions seem different they are really the same. For,

$$\begin{aligned} & -1.0000000 \\ & + 0.5740312 + \\ \text{is} = & -0.4259687. \end{aligned}$$

Now if a Logarithm be given, and 'tis requir'd to find the Absolute Number thereto belonging.

The Characteristic serves only to shew you of how many Places it consists.

**Rule.**

Reject the Characteristic, and look for the Decimal Part in the Table, which if you find it not exact, take the nearest, and the Number answering to that Decimal Part is the Number required. Only let this be observed that you take only so many places of this Number so found from the left hand, as is one more than the Index or Characteristic of your Logarithm. Those Figures (if any be) that remain are Decimal Parts.

$$\text{Thus Number answering to the Log.} \left. \begin{array}{l} 3.072617 \\ 2.072617 \\ 1.072617 \\ 0.072617 \end{array} \right\} \text{is} \left\{ \begin{array}{l} 1182 \\ 118.2 \\ 11.82 \\ 1.182 \end{array} \right.$$

*Of the Use of the Table of Logarithms, Sines, Tangents, and Secants.*

1. Every Page is divided into 8 Columns, the first and last of which contains the Minutes of every Degree, and the other Six the Logarithm Sines, Tangents, and Secants, of those Degrees and Minutes.

2. The  $\left\{ \begin{array}{l} \text{Left} \\ \text{Right} \end{array} \right\}$  hand Col. of each P.  $\left\{ \begin{array}{l} \text{Under} \\ \text{Over} \end{array} \right\}$  Min. at the  $\left\{ \begin{array}{l} \text{Head} \\ \text{Foot} \end{array} \right\}$

Of the Tab. contains the Min. of those Degrees  $\left\{ \begin{array}{l} \text{Less} \\ \text{More} \end{array} \right\}$  than 45  
And



And increase in their  $\left\{ \begin{array}{l} \text{Descent} \\ \text{Ascent} \end{array} \right\}$  from 0 to 60 Minutes.

To find the Sine, Tangent and Secant, of any Degree and Minute given.

Rule.

If the Degrees be  $\left\{ \begin{array}{l} \text{Less} \\ \text{More} \end{array} \right\}$  than 45 Deg. they are found in those Columns which have the words Sine, Tangent, Secant. at the  $\left\{ \begin{array}{l} \text{Head} \\ \text{Foot} \end{array} \right\}$  of the Table.

Example.

Suppose the Sine, Tangent and Secant of 7 Degrees, 29 Minutes were required.

Look for 7 Degrees on the top of the Table, and in the first Column of the left hand Page you'll find 29 under Min. against which and under Sine, you'll find 9.114737. Under Tangent you'll find 9.118452. Under Secant you'll find 10.003715. Which are the Log. Sine, Tangent, and Secant, Required.

And a Sine, Tangent, or Secant, being given to find the Degrees and Minutes belonging to it is but the Reverse, and therefore I shall forbear any farther instances.

It remains now that I shew you how from the Logarithm Sine, Tangent, Secant; to find the natural Sine, Tangent, and Secant.

The Index to the Radius of the Table of Logarithms, Sines, &c. is 10, and consequently the Natural Number answering to it is of 11 places, viz. 10000000000. If this Radius and all the Natural Sines, &c. to this Radius were divided by a Million, or which is the same six places cut off, the Radius will become 10000. and the Figures remaining in the Sines, Tangents, &c. shall be Sines, Tangents, &c. to the Radius 10000, viz. so far as this Table of Logarithms goes, which will be effected in this Table of Logarithms, Sines, &c. by subtracting always 6 from the Exponent, and then the Remainder will be Logarithm of a Natural Number expressing the Sine, Tangent, and Secant to the Radius 10000, which may be found by the Table of Logarithm.

For instance, having the Log. Sine, Tangent and Secant of 37. 30. In the Table, to find from thence the natural Sine, Tangent and Secant to the Rad. 10000.

Log. Sine.

Log. Tangent

Log. Secant

9.784447.

9.884980.

10.100533

Subtracting 6 from the Exponent.

they become

3.784447.

3.884980.

4.100533.

Which Logarithms look'd for in the Table, the Natural Numbers answering them, are,

Nat. Sine.

Nat. Tangent.

Nat. Secant.

6087

7673

12600.

Of such parts of which the Radius contains 10000.




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FINIS.

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